CONSTRUCTION OF PLANTS AND ELECTRICITY/HEAT GENERATION FROM HYDROGEOTHERMAL RESOURCES IN THE REPUBLIC OF SERBIA - GUIDE FOR INVESTORS

Branislava Lepotić Kovačević, PhD Law
Stanislav Milosavljević, BSc M. Eng.
Bojan Lazarević, BSc El. Eng.

IZGRADNJA POSTROJENJA I PROIZVODNJA ELEKTRIČNE/TOPLOTNE ENERGIJE IZ HIDROGEOTERMALNIH IZVORA U REPUBLICI SRBIJI - VODIČ ZA INVESTITORE

Dr Branislava Lepotić Kovačević, dipl.prav.
Stanislav Milosavljević, dipl.rud.inž.
Bojan Lazarević, dipl.el.inž.

USAID
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CONSTRUCTION OF PLANTS AND ELECTRICITY/HEAT GENERATION FROM HYDROGEOTHERMAL RESOURCES IN THE REPUBLIC OF SERBIA - GUIDE FOR INVESTORS

Renewable energy, such as biomass, wind, mini-hydro, and geothermal is receiving greater attention from governments, potential investors, and consumers worldwide. In 2007, the European Union (EU) set a combined member country target that 20% of overall energy consumption will come from renewable sources by 2020.

Serbia has significant renewable energy resources to meet this emerging demand, and the Serbian Government has developed a strategy to leverage this opportunity. To support sector growth and investment, and to meet their commitment to the South East Europe Energy Community Treaty, the Serbian government adopted several regulations by decree in November 2009, including:

- Establishment of a "Feed-in Tariff" system whereby the Serbian government will subsidize the cost of renewable electricity;
- Defined the requirements of becoming a "Privileged Electric Power Producer" who uses renewable energy sources to generate electricity;

With the Serbian government's adoption of "feed-in tariffs" and other key regulation, GTZ Project "Strengthening of the Local Self-Government" (GTZ SLS) has been working with government ministries and the USAID Competitiveness Project private sector investors to encourage investment in renewable energy projects.

A key activity has been to create definitive guides to the renewable energy licensing process aimed at encouraging investors and other market actors to become active in the sector. Representatives of the Ministry of Mining and Energy, Ministry of Environment and Spatial Planning and Ministry of Agriculture, Forestry and Water Management together with the GTZ experts have created four such 'roadmaps', which explain the licensing process for developing projects in geothermal water, small hydro power, wind power and biomass subsectors. The USAID Competitiveness Project has supported GTZ SLS in the creation of investor roadmaps as part of its activities to encourage investment in the sector by providing technical assistance to prospective investors.

Each roadmap is created as a detailed document, which describes administrative procedures and identifies relevant institutions and necessary planning and design documents needed for investors. The roadmaps navigate the legislative and regulatory framework and should be utilized as a baseline for further legislative and regulatory reform. GTZ SLS has also prepared short versions of roadmaps, which are executive summaries that investors can use for fact finding.

We hope that this effort will be a vehicle to facilitate dialogue between the private sector and the Government to identify and address barriers to the growth and financial viability of the sector.

Energy from Geothermal Resources

- Geothermal energy is the heat accumulated in dry rocks and fluids of the lithosphere; this is a result of the continuous radiation of heat from the interior of the Earth
- Geothermal energy can be:

- Hydrogeothermal energy - accumulated in fluids (water and gases) and
- Petro-geothermal energy - accumulated in hard rocks

Hydrogeothermal Energy

- Hydrogeothermal energy is a form of a renewable energy source
- Hydrogeothermal energy can be used directly, both for heat and electricity generation

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Power Plants for Electricity/ Heat Generation from Hydrogeothermal Sources

- Hydrogeothermal power plants used for electricity and/or heat generation

- Small power plants - up to 10MW
- Big power plants - 10 MW or more

Investor's rights

The investor must acquire the following rights:

- I The right of exploitation
- II The right of construction
- III The right to generate electricity/heat

Relevant Legislation

- The Energy Law (Official Gazette of the RoS, No. 84/04)
- The Mining Law (Official Gazette of the RoS, No. 44/95, 85/05-superseding law, 101/05- 85/05-superseding law, 34/06, and 104/09)
- The Law on Geological Surveys (Official Gazette of the RoS, No. 44/95)
- The Law on Mineral Resource Reserve Establishing and Classification and Presentation of Geological Survey Data (Official Gazette of the FRY, Nos. 12/98 and 13/98)
- The Law on Planning and Construction (Official Gazette of the RoS, Nos. 72/09 and 81/09)
- The Law on Environmental Protection (Official Gazette of the RoS, Nos. 135/04 and 36/09)
- The Law on Waters (Official Gazette of the RoS, No. 30/10)
- The Law on Concessions (Official Gazette of the RoS, No. 55/03)
- The Law on Public Companies and Performing Activities of Public Interest (Official Gazette of the RoS, Nos. 25/00, 25/02, 107/05, and 108/05)
- The Law on Public Utility Companies (Official Gazette of the RoS, Nos. 16/97 and 42/98)

and other relevant laws and executive regulations.

Competent Institutions

- The Ministry of Mining and Energy - MME
- A Local Self-government Unit - LSU
- The Energy Agency - EA
- The Republic Geodetic Authority - RGA
- The Ministry of Agriculture, Forestry and Water Management - MAFWM
- The Ministry of Environment and Spatial Planning - MESP
- The competent secretariats of the Autonomous Province
- The Republic Hydro-meteorological Service - RHMS
- The Electric Grid of Serbia - EMS
- The Electric Power Industry of Serbia - EPS

Other competent institutions in each concrete case

From an Idea to Exploitation

I Acquiring the right to survey and exploitation of hydrogeothermal resources

II Acquiring the right to the construction of a power plant facility

III Acquiring the right to electricity/heat generation

Main Steps from an Idea to Exploitation (I)

I

Acquiring the right to survey and exploitation of hydrogeothermal resources

I-1 Geological surveys

Geological survey project
Approval for geological surveys
Feasibility study of geological investigations
Feasibility study of groundwater reserves

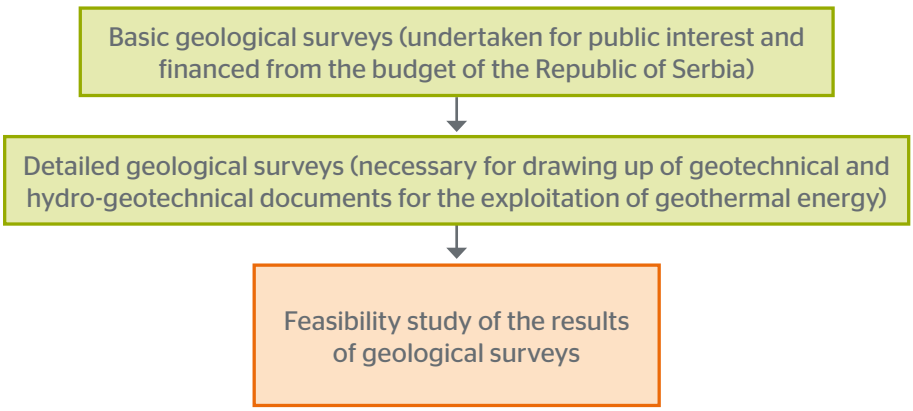
I-2 Exploitation of hydrogeothermal energy

Approval for exploitation of mineral resources
Approval to carry out mining works

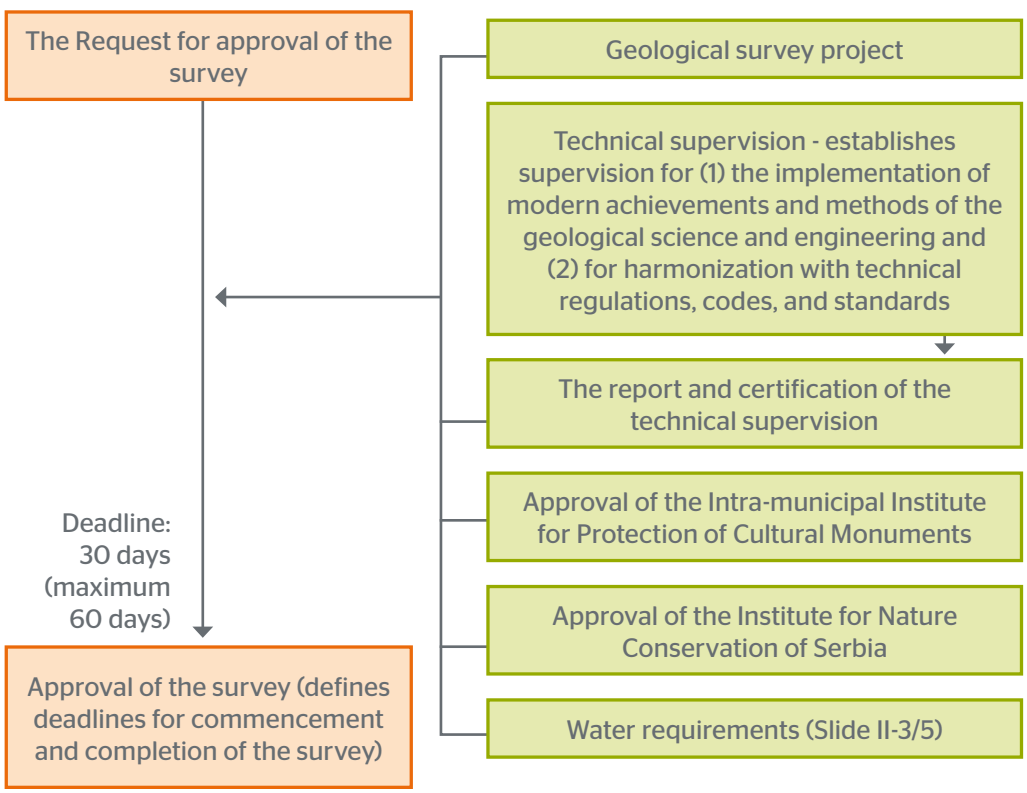
I-3 Mining facilities

Geological surveys are undertaken with the aim of establishing the hydro-geological potential of a deposit

I-1
Geological Surveys



I-1
Approval of Geological Surveys



I-1

Feasibility Study of Geological Surveys - Contents -

- Presentation and evaluation of former surveys
- Aim and method of investigation
- A systematic presentation of data obtained in field investigations
- Presentation and explanation of survey results
- Presentation of reserves of mineral resources, conditions for exploitation, and measures for protection of the environment
- Techno-economic assessment of survey results

A feasibility study of results of geological surveys has the character archival materials and it is kept permanently in line with the regulations

The party in charge of a survey is obliged to submit one copy of the feasibility study to the authority that initially issued the approval for the survey

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I-1

Feasibility Study of Ground Water Reserves

- The economic entity undertaking the works (the party in charge of a survey) must submit the feasibility study of the ground water reserves on an exploratory/exploitation field to the Ministry of Environment and Spatial Planning, or to the competent authority of the Autonomous Province every fifth year, in order to establish and certify ground water reserves

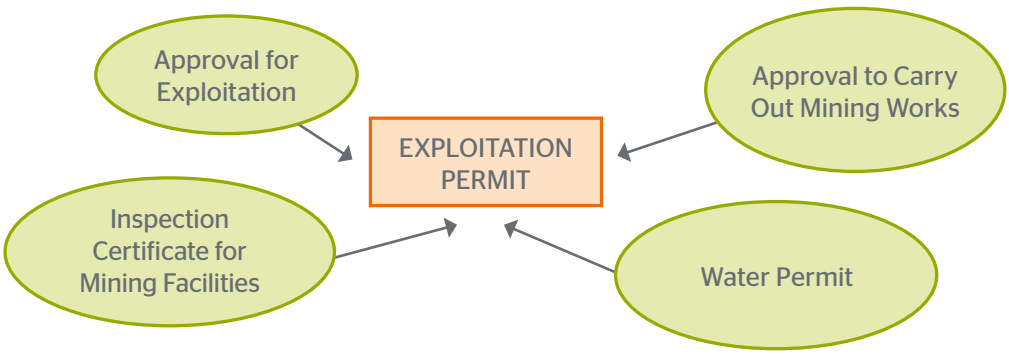
A feasibility study of results of geological surveys has the character of archival materials and it is kept permanently in line with the regulations

The party in charge of a survey is obliged to submit one copy of the feasibility study to the authority that initially issued the approval for the survey

Exploitation of hydrogeothermal energy is the process by which hydrogeothermal energy is used

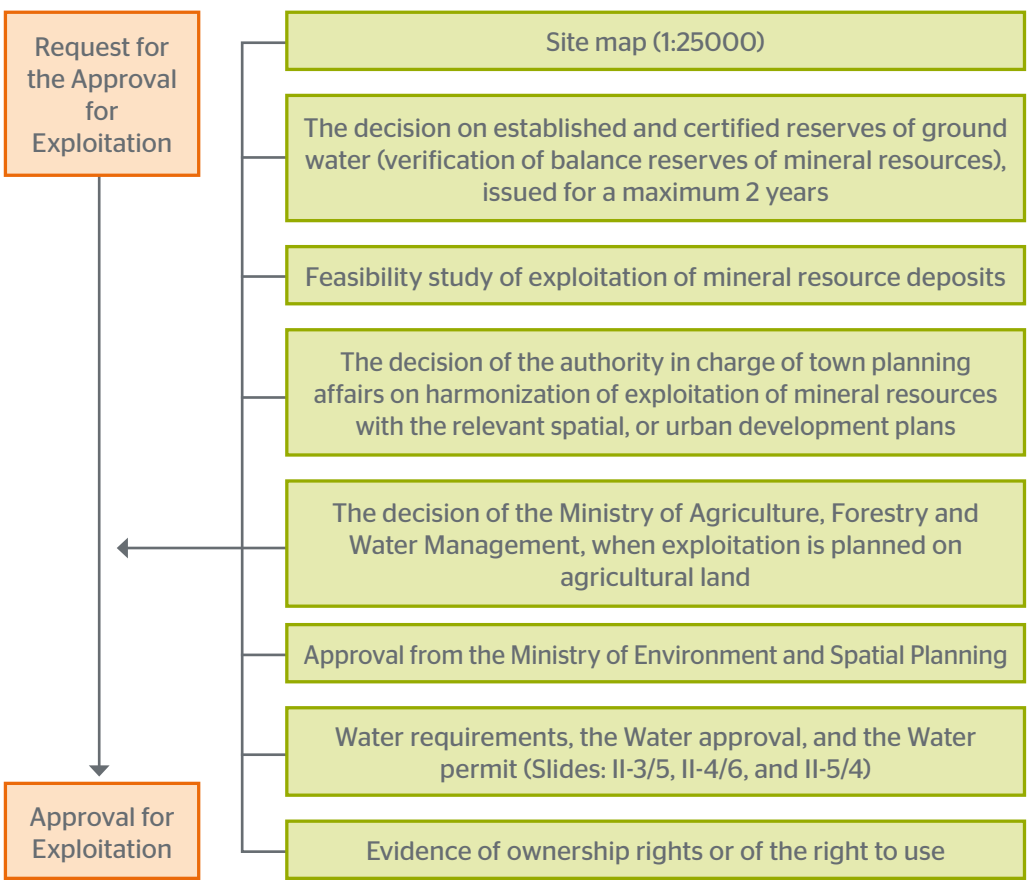
I-2

Exploitation of Hydro-geothermal Energy



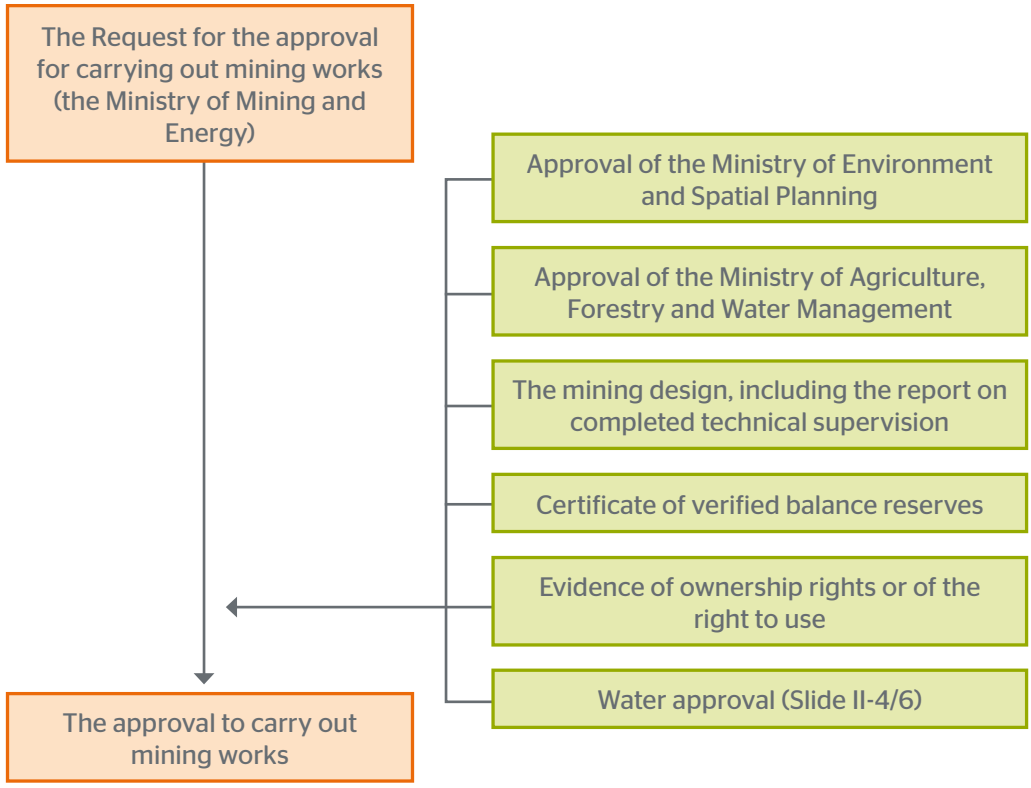
I-2

Approval for Exploitation of Mineral Resources



I-2

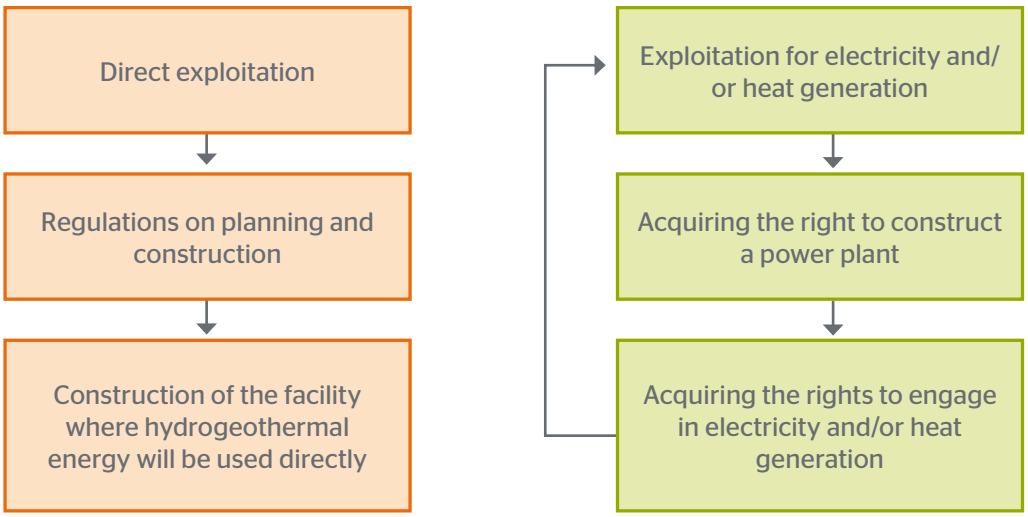
Approval to Carry out Mining Works



I-3

Mining Facilities

- Mining facilities are directly related to the technological process of the surveys, exploitation, and transportation of ground waters in an exploitation field
- The inspection certificate for mining facilities is an administrative document issued by the Ministry of Mining and Energy, which approves the use of a mining facility or of a part thereof



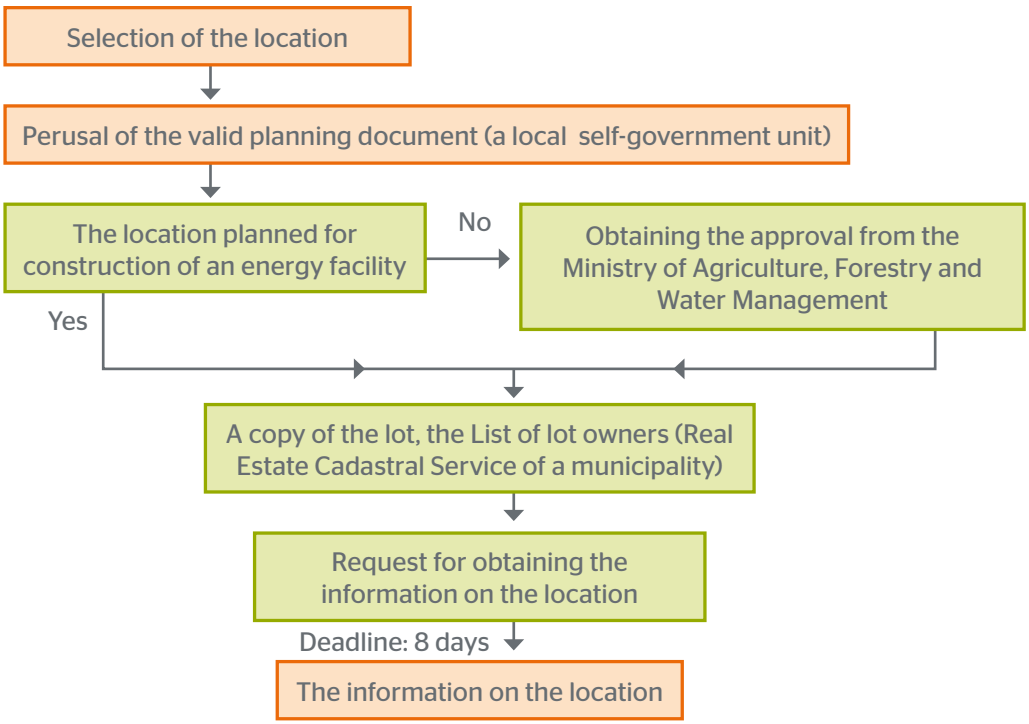
I-4 Exploitation of Hydro-geothermal Energy

Main Steps from an Idea to Exploitation (II)

II

Acquiring the right to construct and the construction of a power plant facility

I-1 The information on location
I-2 Acquiring the energy permit
I-3 Obtaining the location permit
I-4 Obtaining the building permit
Construction of the facility
I-5 Acquiring the Operating Permit



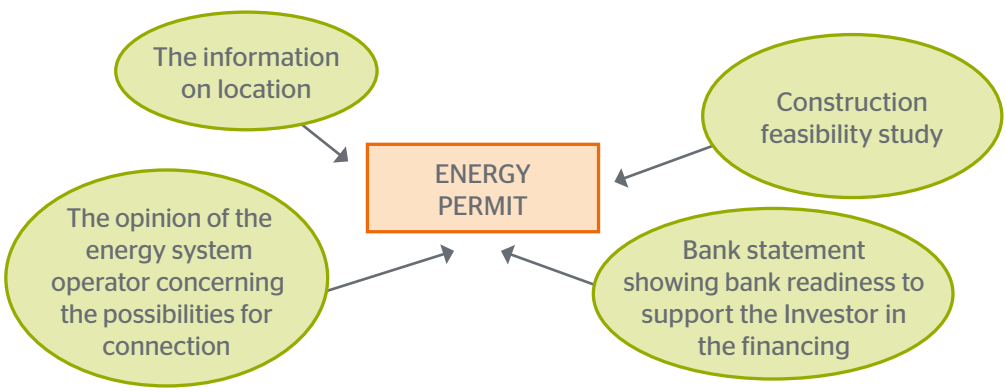
II-1

Location Selection, Perusal of Valid Planning Documents, and the Information on Location

The energy permit is a key element in acquiring the right to construct an energy facility; it is obtained in accordance with Serbia's Program on Implementation of the Energy Sector Development Strategy

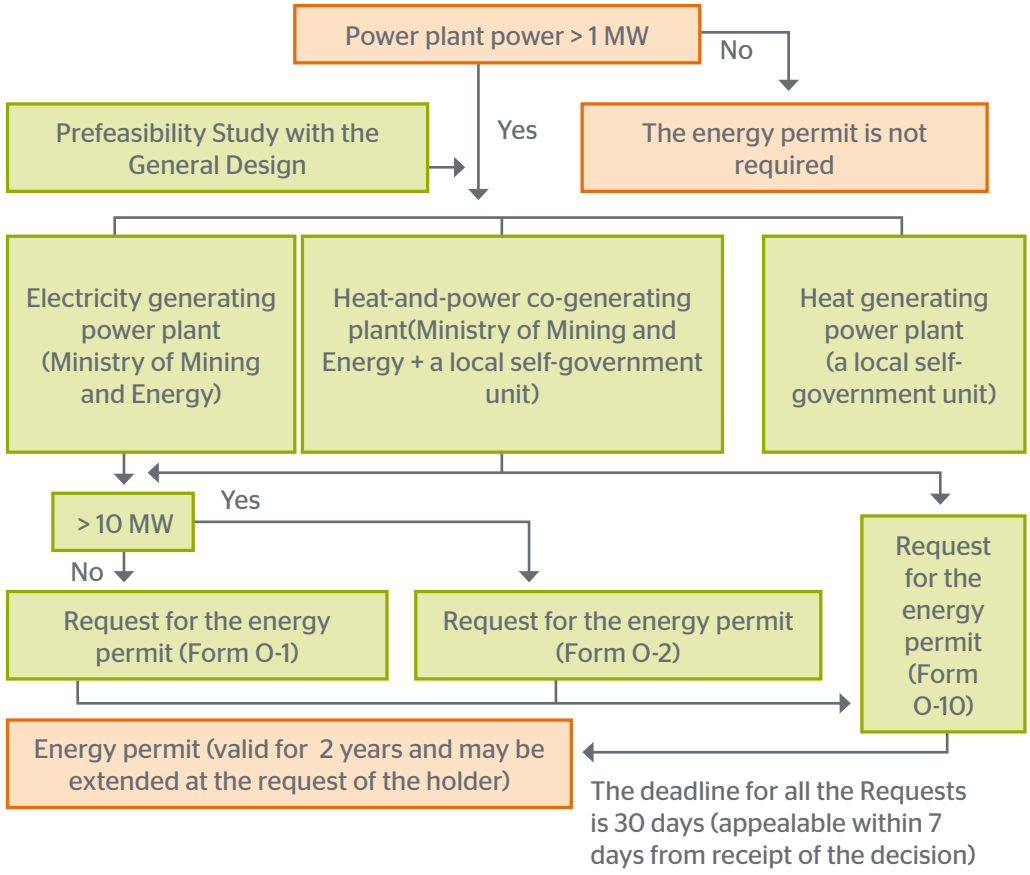
II-2

Energy Permit



II-2

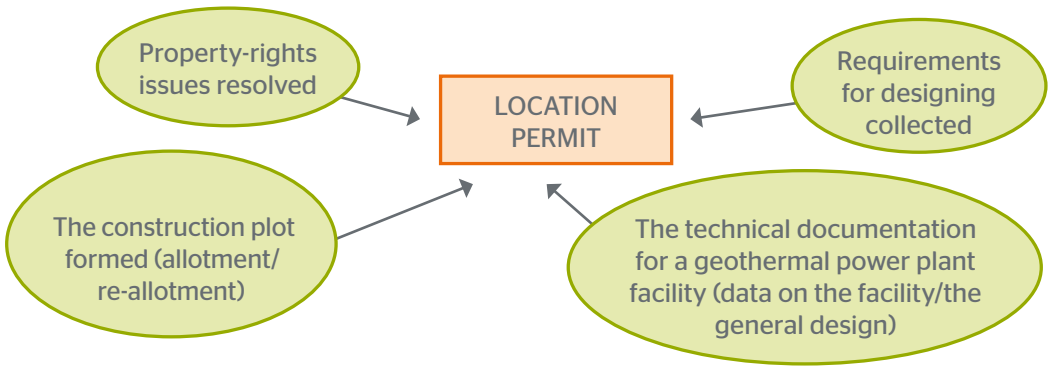
Obtaining the Energy Permit



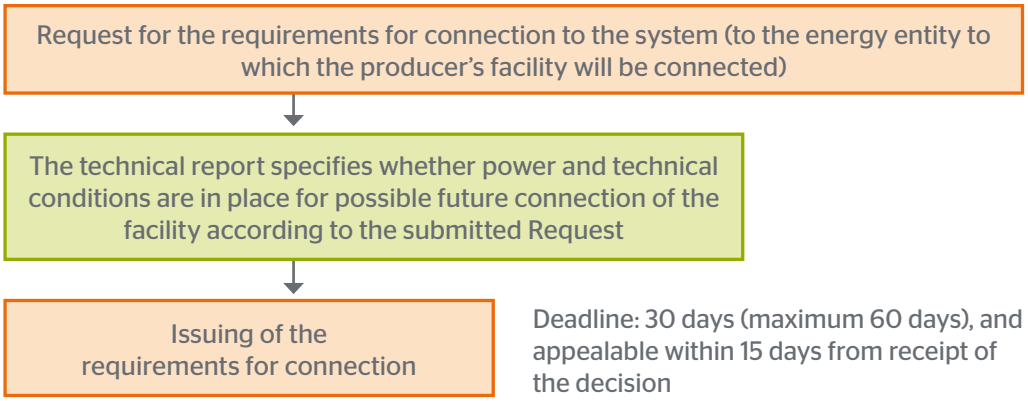
II-3

Location Permit

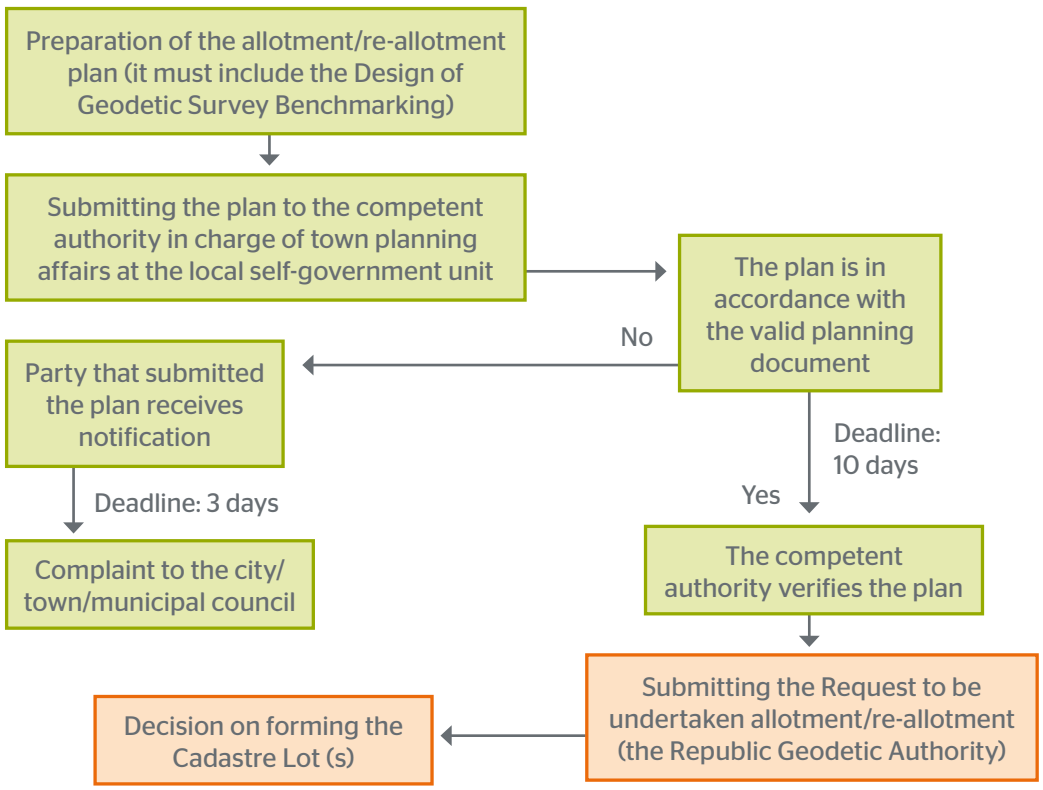
The location permit contains all the requirements and data necessary for preparation of the technical documentation and the main design, in accordance with a valid planning document



II-3 Requirements for Connection to the Electricity/District Heating Network

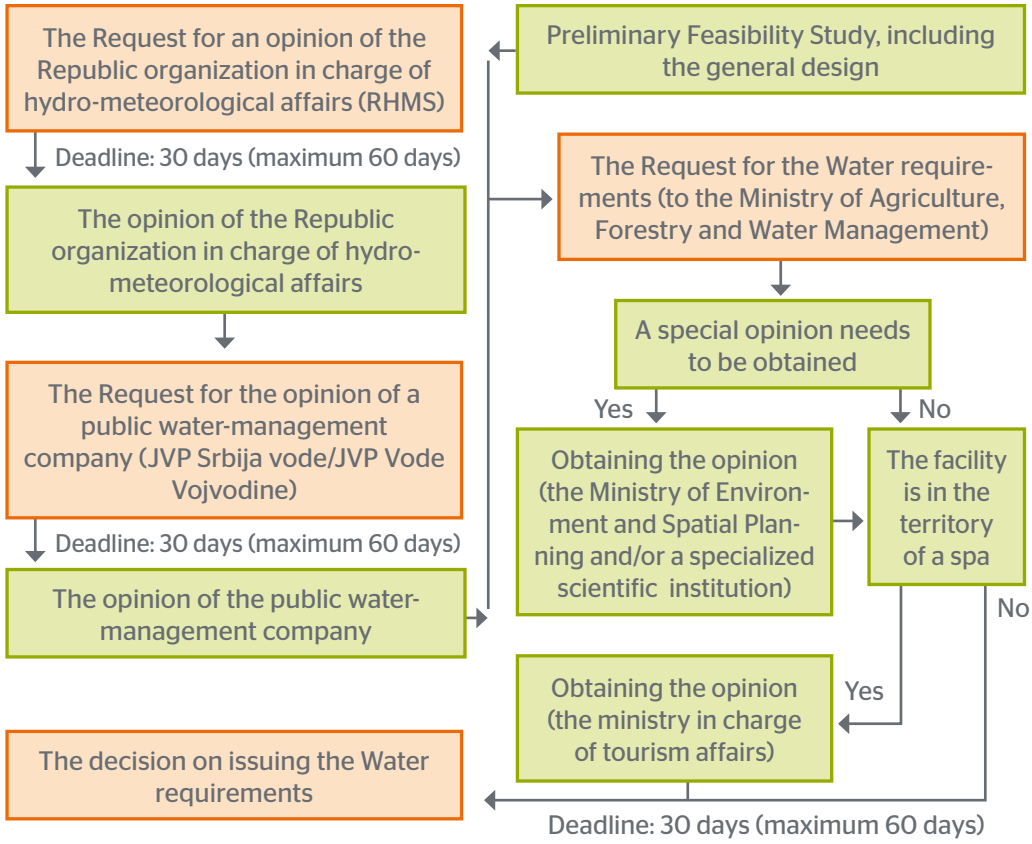


II-3 Forming the Building Plot



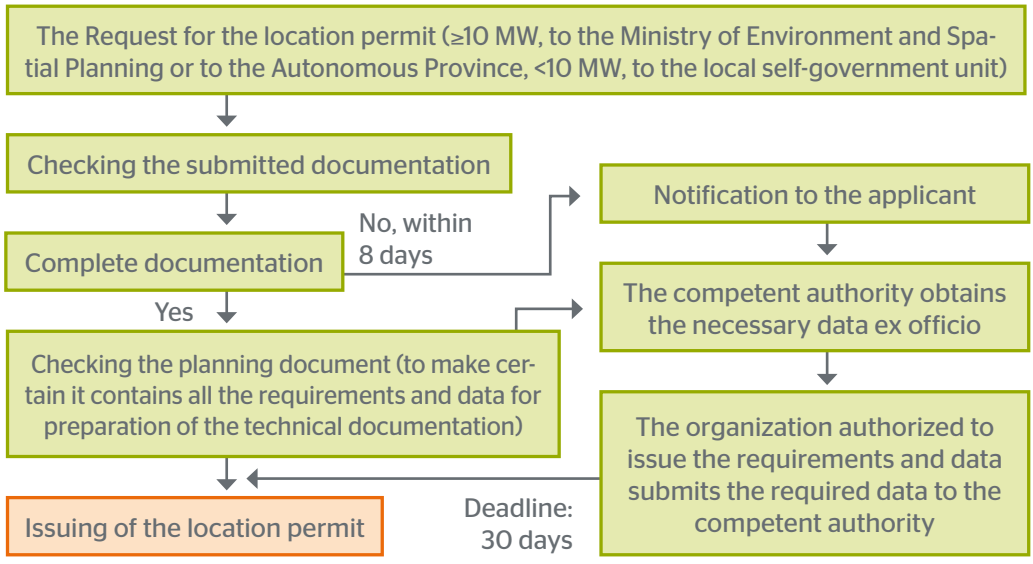
II-3

Water Requirements



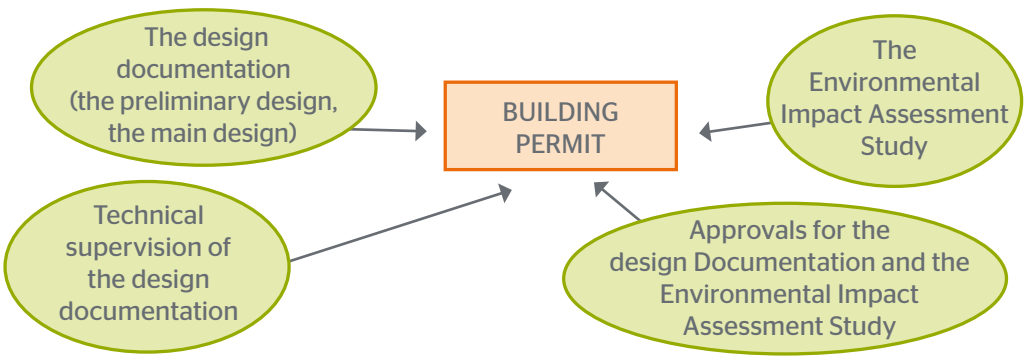
II-3

Obtaining the Location Permit

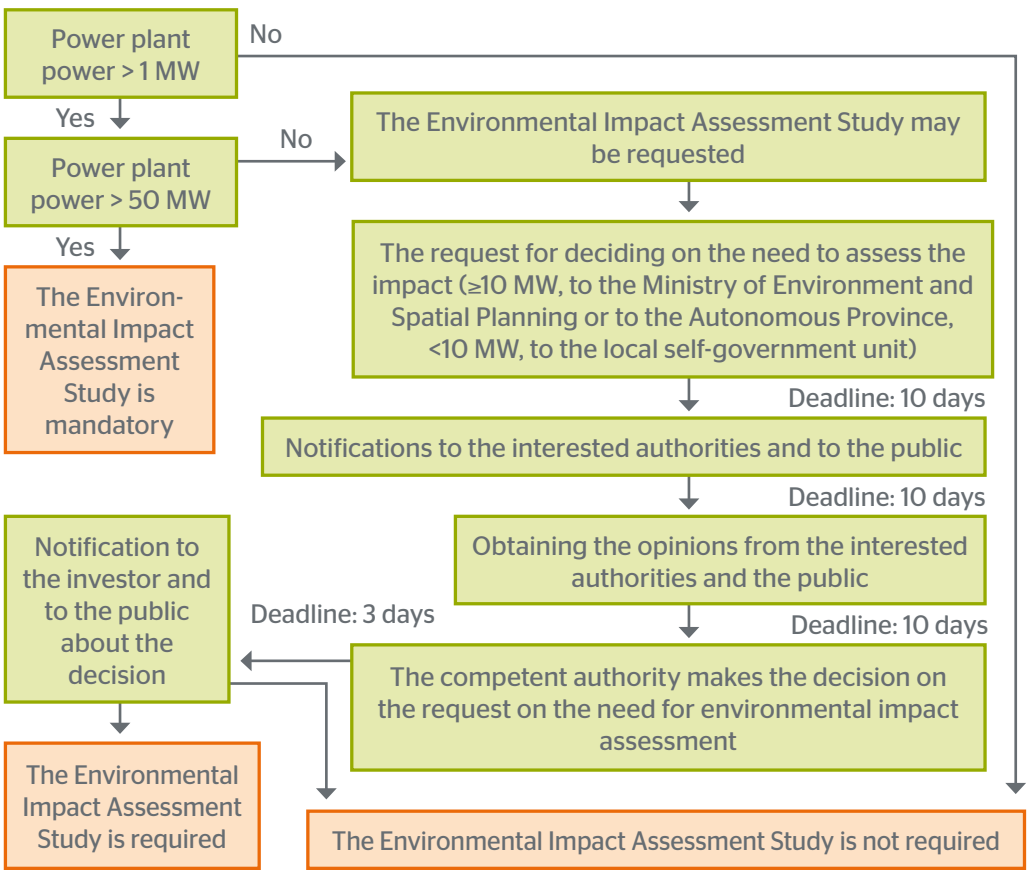


II-4 Building Permit

After completing the the technical supervision of the main design and the positive report on a completed technical supervision, the Request for the Building Permit must be submitted to the competent authority at the local self-government unit

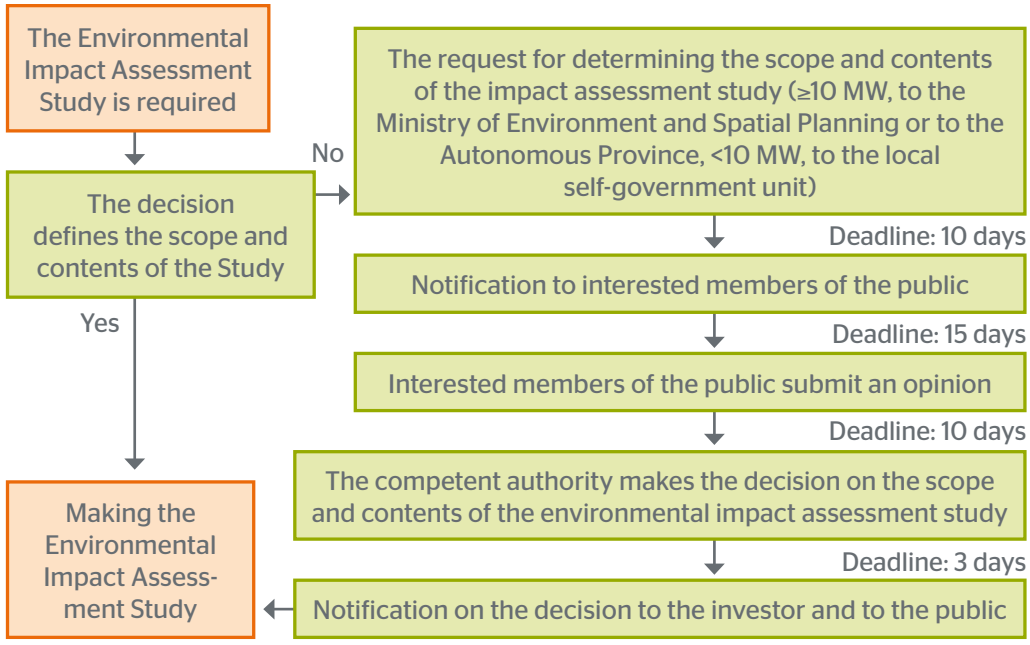


II-4 Environmental Impact Assessment (1)



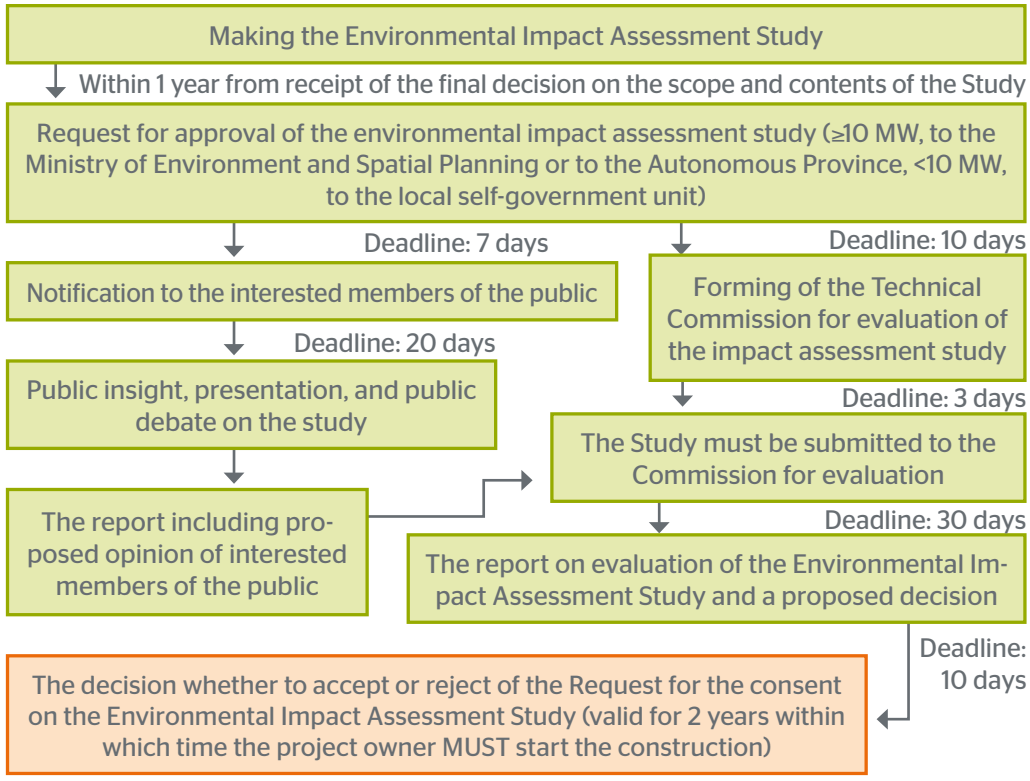
II-4

Environmental Impact Assessment (2)

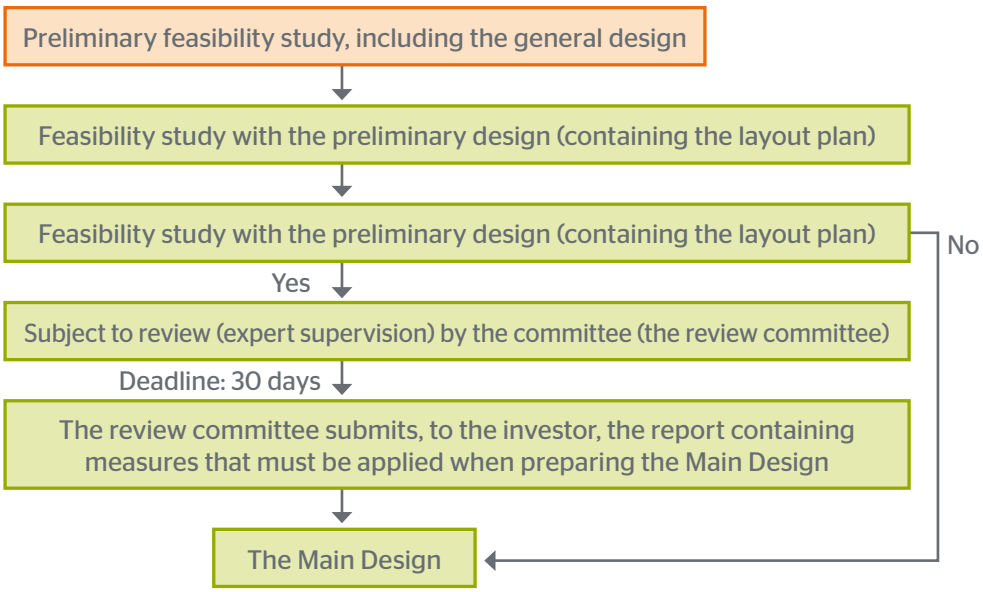


II-4

Environmental Impact Assessment (3)

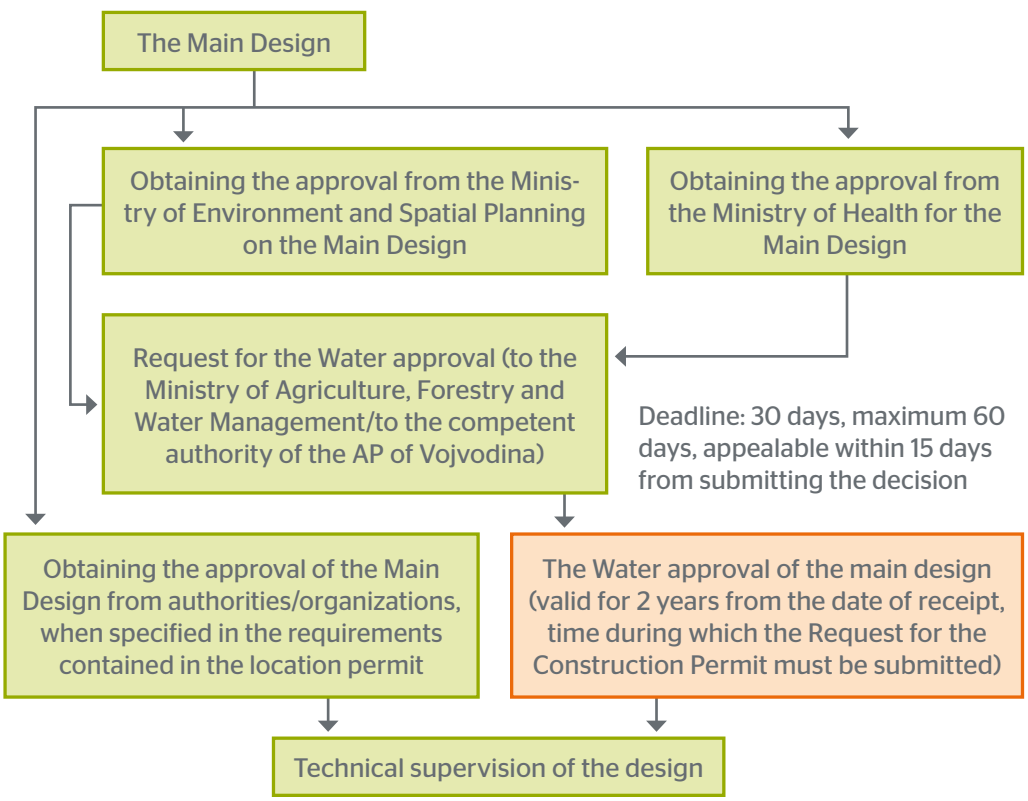


Technical Documentation



II-4

Water Approval and Technical Supervision of the Design



II-4

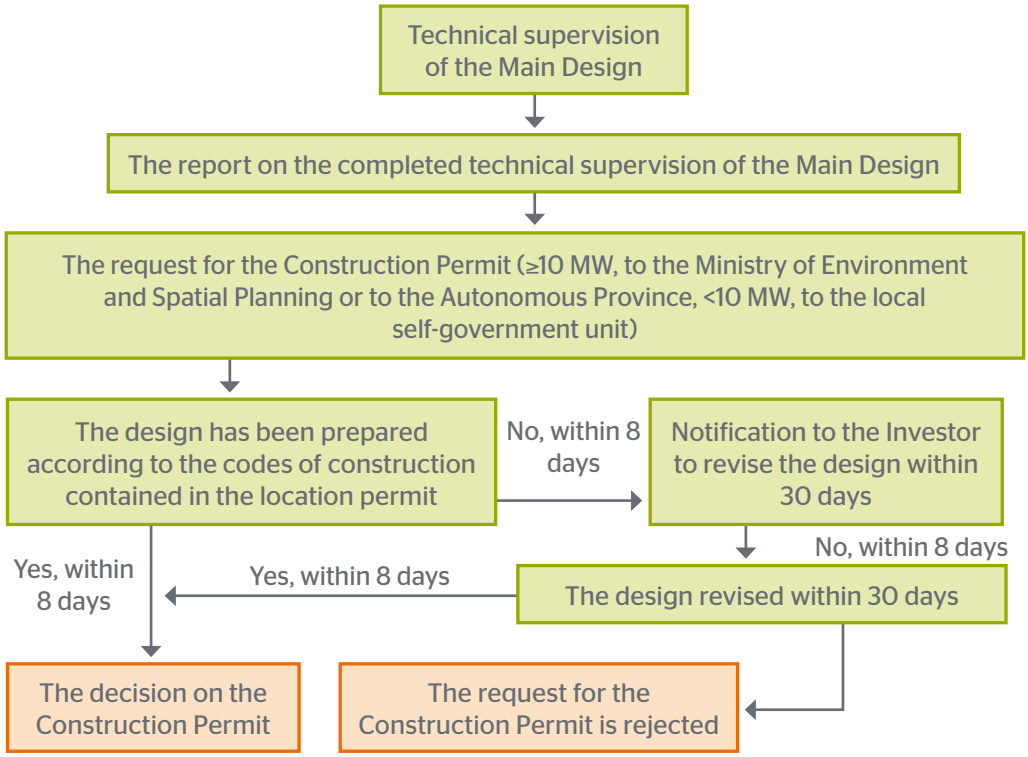
Construction Permit* - Attachments to the Request

- The Location Permit
- Three copies of the Main Design, including the report on completed technical supervision and verification that it is correct
- Evidence of ownership rights, or of the right to lease the construction land (submitted for the location permit as well)
- Evidence of a formal relationship regarding payment of the fee for the construction land development
- Evidence of payment of administrative fees and duties
- Energy permit (if the power plant power exceeds 1 MW).

*** For the facilities where the building permit is issued by the Ministry, or by the Autonomous Province, the report of the review committee must also be submitted with the Request.**

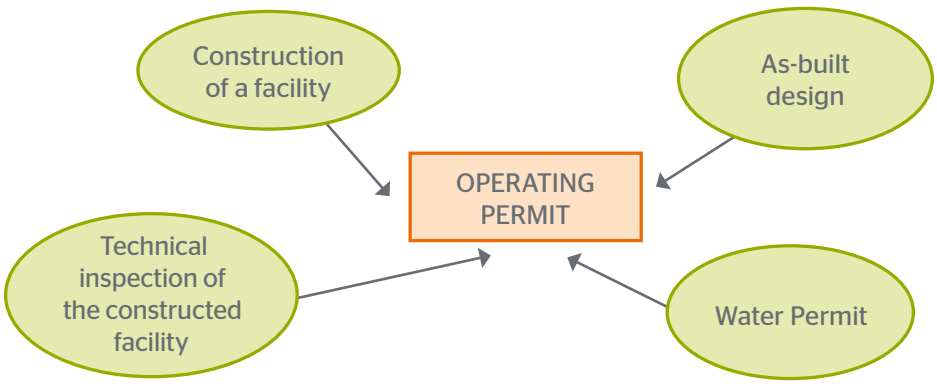
II-4

Obtaining the Construction Permit

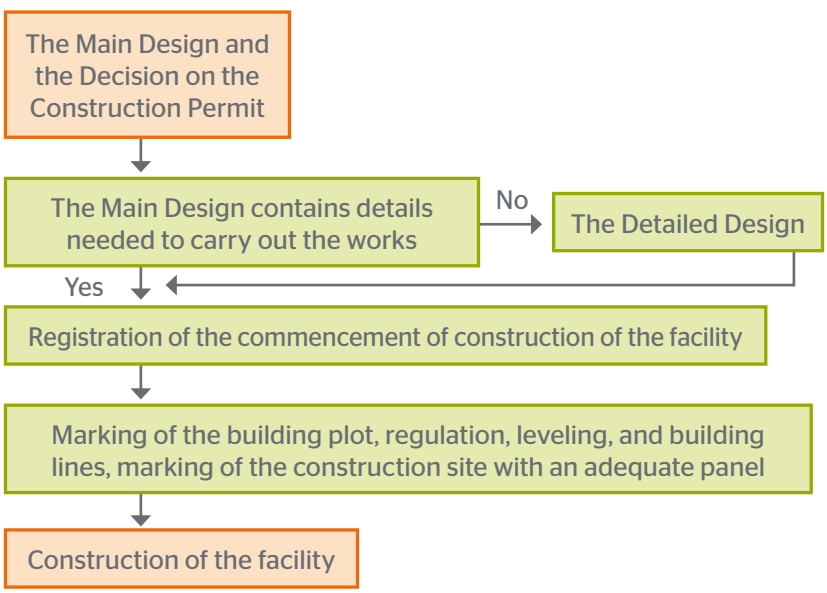


II-5 Operating Permit

- The technical inspection determines the fitness of a facility for us
- A facility may be used after the Operating Permit has been obtained
- It is necessary to submit the As-built Design in the process of obtaining the Operating Permit

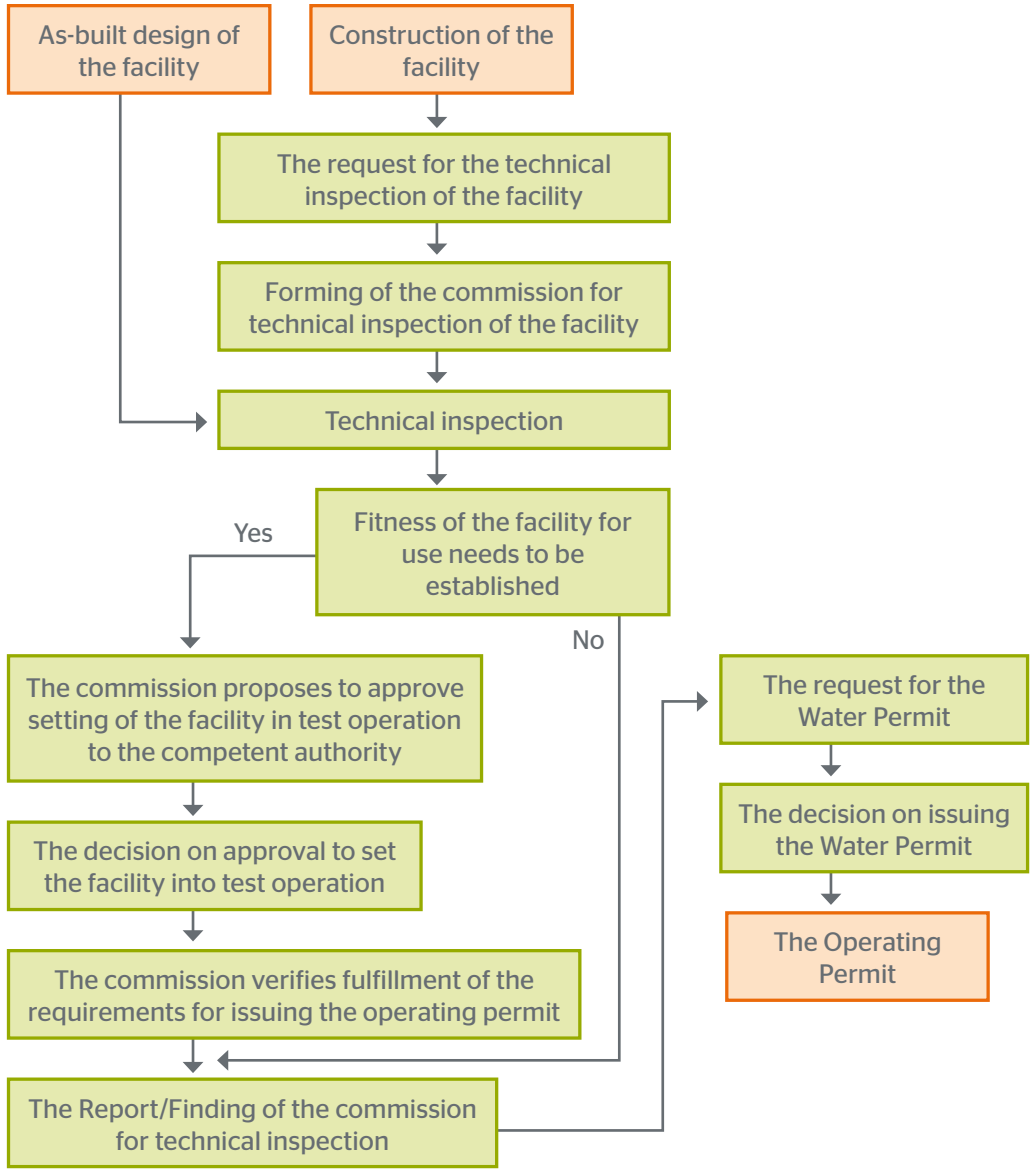


II-5 Construction of a Facility



II-5

Technical Inspection and Operating Permit



Main Steps from an Idea to Exploitation (III)

III

Acquiring the right to generate electricity/heat

III-1 Acquiring the right to engage in an activity of public interest

III-2 License

III-3 Approval for connection

III-4 Acquiring the status of a privileged producer

III-5 Engaging in the activity of electricity/heat generation

III-1

The Right to Electricity Generation - Acquisition Method

- The precondition for pursuing electricity/heat generation and for acquiring a license
- Several models exist

1. Investment in affiliated companies of a public company
   - It involves clear and relatively short procedures
   - A potential problem - a parent public company is reluctant to allow a major share of the Investor
   - Risk - a high degree of discretionary power of the founder of the public company

or

2. Assigning the right to engage in an activity of public interest
   - The investor acquires the right only after conclusion of the Assignment Agreement, and the Agreement is concluded only after the facility has been constructed
   - In practice, a simpler procedure compared to concessions
   - Most often applied in practice

or

3. Granting concessions
   - The Investor acquires the right through a clearly defined procedure at the very start
   - The obligation to set up a new economic operator
   - The lengthiest procedure

III-1

Assigning the Engagement in an Activity of Public Interest

Electricity generation The Republic activity of public interest (competence: the Ministry of Mining and Energy)	Heat generation A public utility service (competence: a local self-government unit)
↓	↓
Conclusion of the Assignment Agreement that assigns the activity of public interest: electricity generation	Conclusion of the Assignment Agreement that assigns the activity of public utility services (heat generation)

- Adequate technical prerequisites (the ownership right or the right to use the power plant, which has been constructed in accordance with the law, technical and other regulations)
- Staff capacity (that persons working in the power plant have the necessary qualifications and other prescribed skills)
- Implementation of the prescribed safety at work
- Implementation of the prescribed requirements and method of protection and improvement of the environment

III-1

The Assignment Agreement - Requirements to be met

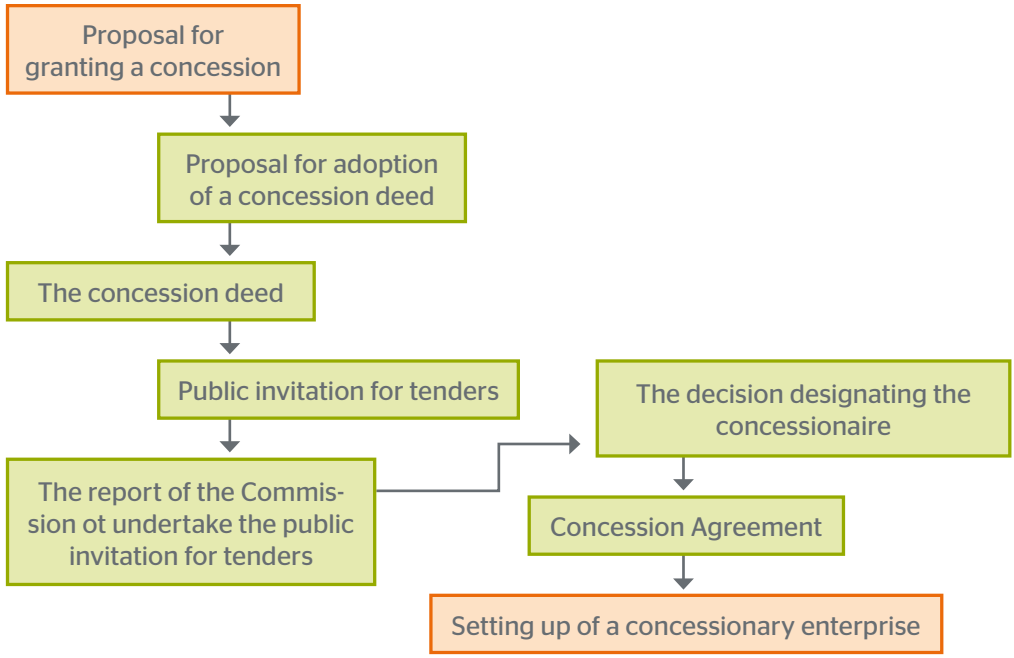
- Operation and business of the economic operator to whom this activity is assigned
- Obligations of the economic operator to provide the conditions for continuous, proper, and quality needs of the users of products and services
- Mutual rights and obligations of the parties to the Agreement in cases where economic and other conditions for pursuing the activity of public interest are not provided
- Rights and obligations in case of a disruption in the economic operator's business operation
- Other rights, obligations and important issues to protect the public interest

III-1

The Assignment Agreement Assigning the Activity - Contents/ Provisions

III-2

Concession



III-2

Concession - Contents of a Concession Agreement

- The parties to the Agreement, the subject matter of the concession, including the description of the facility and equipment
- Duration of the concession period and conditions under which such terms may be extended
- Manner of and deadlines for securing the funds for financing the concession business (the financial plan) and the time line of their employment, the amount and method of providing guarantees for fulfillment of the concessionary obligation
- The requirements for conducting the concessionary business
- Standards of products and services, technology transfer
- Criteria for setting the end-user prices-tariffs for products and services
- The concession fee (the amount, deadlines, conditions, and the method of payment)
- Rights and obligations concerning the undertaking of measures to ensure general safety, protection of health and protection of the environment as well as liabilities for compensation of damage caused by jeopardizing general safety and protection of the environment
- The rights to transfer the concession
- The time and method of handing over the immovables, the facility, equipment or plants and the condition in which they must be handed over
- Conditions for amendments or termination of the agreement and their consequences, changed circumstances and force majeure
- The method of settling disputes and enforcement of applicable law, control, etc.

- The tendering procedure is not prescribed
- The obligation to specify the place for engaging in electricity generation is not stipulated (if it is not tied to a concrete facility by the agreement)
- The maximum time period for engaging in an activity of public interest is not specified (if it is not defined in the agreement)
- The obligation to establish the scope of engaging in an activity is not prescribed
- The obligation to pay a fee for engaging in an activity of public interest is not prescribed

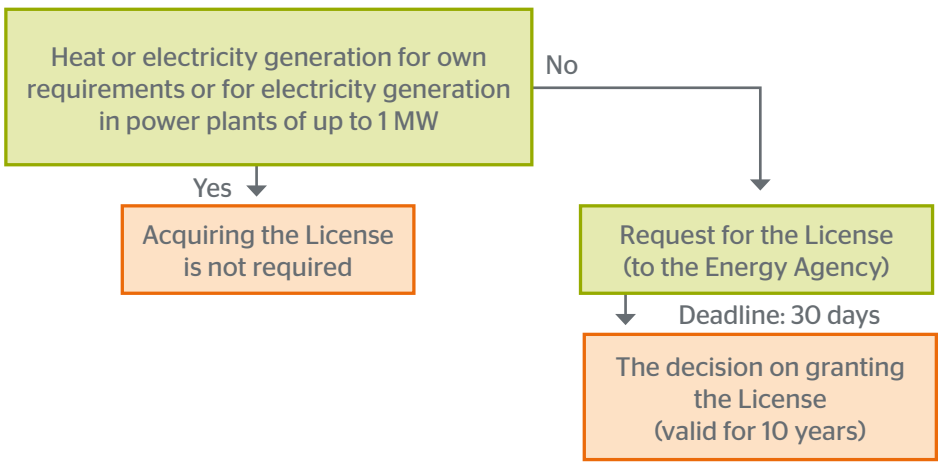
III-2

The Assignment Agreement vs. Concession - Main Differences

- The license is a permit to engage in an energy-related activity; it is issued by the Energy Agency of the Republic of Serbia
- It is required only for power plants with a 1MW or higher power

III-3

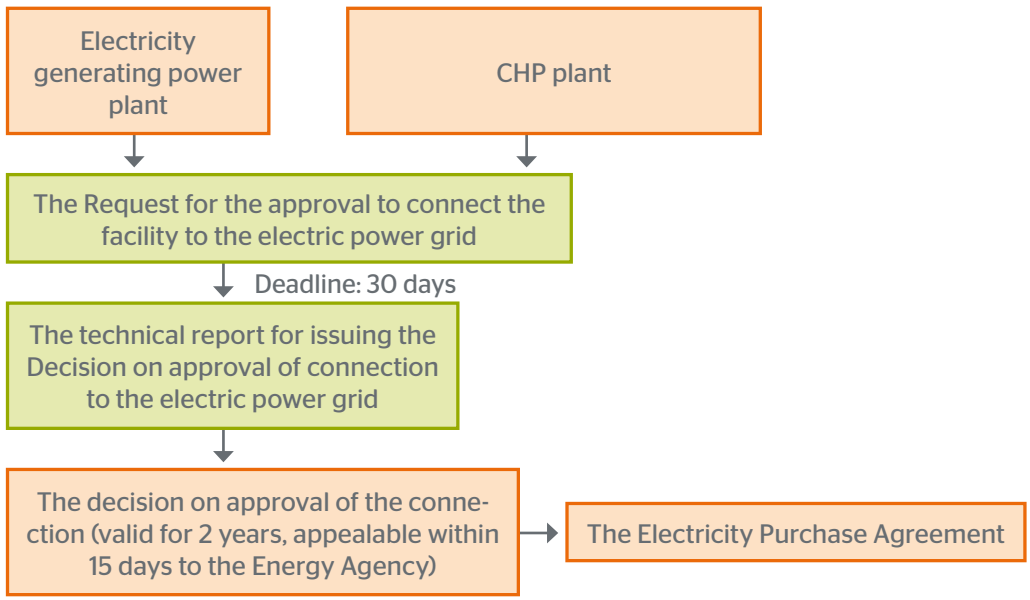
License - Acquiring the License



III-4

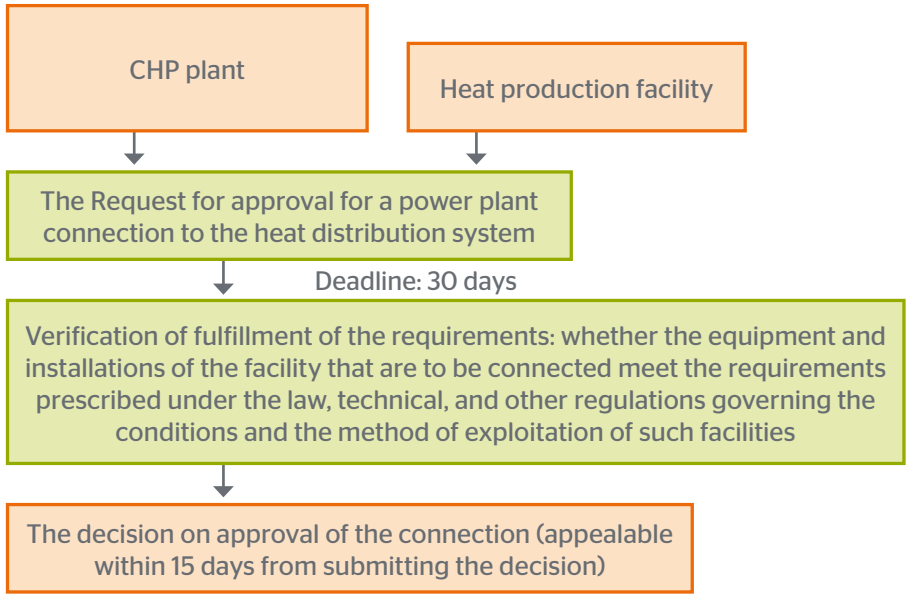
Approval for the Connection to the Electricity Network

A Precondition for electricity and/or heat to be supplied to consumers



III-4

Approval for the Connection to the District Heating Network



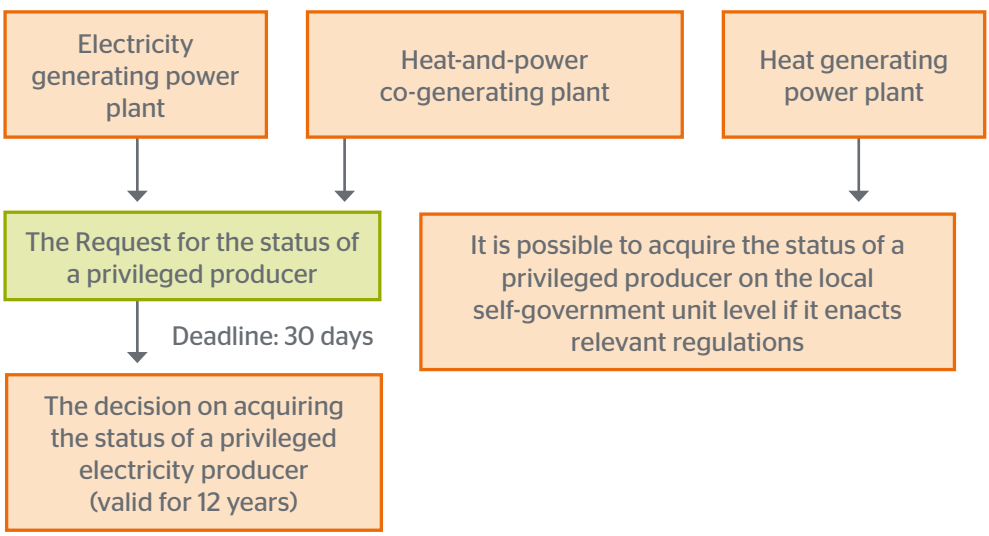
III-5 The Status of a Privileged Producer

- The priority right in an organized market with respect to other producers offering electricity under equal terms and conditions
- The right to subsidies (tax, customs, and other relieves/ facilities)

Incentives - Feed-in tariffs:

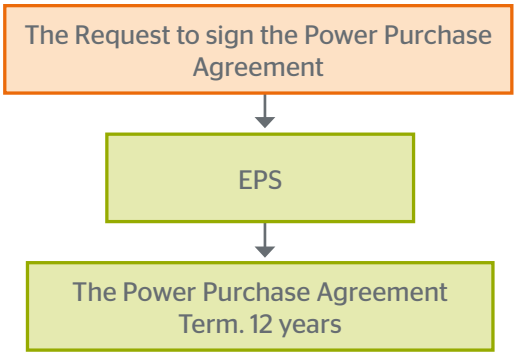
Power Plant Type	Installed power (MW)	Incentive - feed-in tariff (cEUR/1 kWh)
Power Plant Type		7,5
Co-generation plants using fossil fuels	Up to 0,2 MW	Co=10,4
Co-generation plants using fossil fuels	from 0,2 MW to 2 MW	Co=10,667-1,333*P
Co-generation plants using fossil fuels	from 2 MW to 10 MW	Co=8,2
Co-generation plants using fossil fuels	from 2 MW to 10 MW	Co=8,5

III-5 Acquiring the Status of a Privileged Producer



III-6

Power Purchase Agreement



IZGRADNJA POSTROJENJA I PROIZVODNJA ELEKTRIČNE/TOPLOTNE ENERGIJE IZ HIDROGEOTERMALNIH IZVORA U REPUBLICI SRBIJI - VODIČ ZA INVESTITORE

Obnovljiva energija iz biomase, vetra, malih hidroelektrana i geotermalnih izvora je u centru pažnje država, potencijalnih investitora i potrošača u celom svetu. U 2007. godini, Evropska Unija (EU) postavila je cilj zemljama članicama da, do 2020. godine, 20% energije u svakoj od zemalja treba da potekne iz obnovljivih izvora energije.

Srbija ima značajne izvore obnovljive energije kojima bi mogla da zadovolji novonastale zahteve. Vlada Srbije je razvila strategiju kako bi iskoristila ovu priliku. Da bi podstakla razvoj i investicije u ovaj sektor i ispunila obavezu po Ugovoru o energetskoj zajednici Jugoistočne Evrope, Vlada Srbije je usvojila nekoliko propisa po direktivi od novembra 2009, uključujući:

- Uspostavljanje sistema "podsticajnih tarifa" u kom će Vlada Srbije subvencionisati trošak obnovljive struje;
- Definisanje zahteva za sticanje statusa "Povlašćenog proizvođača električne energije" koji koristi obnovljive izvore energije za proizvodnju struje;

Od usvajanja podsticajnih tarifa i ostalih ključnih propisa od strane Vlade Srbije, GTZ Projekat "Jačanje lokalne samouprave" (GTZ JLS) je sarađivao sa relevantnim ministarstvima, USAID Projektom za razvoj konkurentnosti i investitorima u privatni sektor, kako bi podstakao investicije u obnovljive izvore energije.

Ključna aktivnost je bila kreiranje konačnih vodiča za proces izdavanja dozvola za obnovljive izvore sa ciljem podsticanja investitora i drugih tržišnih učesnika da postanu aktivni u ovom sektoru. Predstavnici Ministarstva rudarstva i energetike, Ministarstva zaštite životne sredine i prostornog planiranja i Ministarstva poljoprivrede, šumarstva i vodoprivrede zajedno sa stručnjacima GTZ-a su kreirali četiri takva "vodiča", koji objašnjavaju proces dobijanja dozvola za razvijanje projekata za podsektore geotermalne vode, malih hidroelektrana, energije vetra i biomase. USAID Projekat za razvoj konkurentnosti je podržao GTZ JLS u kreiranju vodiča za investitore kao deo svojih aktivnosti vezanih za podsticanje investicija u sektor kroz pružanje tehničke pomoći perspektivnim investitorima.

Svaki vodič je kreiran u vidu detaljnog dokumenta, koji opisuje administrativne procedure i identifikuje institucije od značaja i dokumenta vezana za planiranje i izradu projekata koja su neophodna za investitore. Vodiči obuhvataju i zakonski i regulatorni okvir i treba da se koriste kao osnova za dalje zakonske i regulatorne reforme. GTZ JLS je takođe pripremio kraću verziju vodiča, koji predstavljaju sažetke vodiča koje investitori mogu da koriste za nalaženje podataka.

Nadamo se da će ovaj korak biti podstrek za dalji dijalog između privatnog sektora i Vlade kako bi se identifikovale i uklonile prepreke razvoju i finansijskoj održivosti sektora.

Energija iz geotermalnih izvora

- Geotermalna energija predstavlja toplotu akumuliranu u suvim stenama i fluidima Zemljine kore, kao posledica neprekidnog zračenja toplote iz unutrašnjosti Zemlje
- Geotermalna energija, može biti:

- hidrogeotermalna energija - akumulirana u fluidima (vodi i gasovima) i
- petrogeotermalna energija - akumulirana u čvrstim stenama

Hidrogeo-termalna energija

- Hidrogeotermalna enegija je jedan od oblika obnovljivih izvora enegije
- Hidrogeotermalna energija može da se koristi direktno, a može da se koristi i za proizvodnju toplotne energije i za proizvodnju električne energije

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Elektrane za proizvodnju energije iz hidrogeotermal-nih izvora

- Elektrane na hidrogeotermalnu energiju koje služe za obavljanje delatnosti proizvodnje električne i/ili toplotne energije

- Male elektrane - snage do 10MW
- Velike elektrane - snage od 10 MW i više

Prava investitora

Investitor mora da stekne sledeća prava:

- I Pravo na eksploataciju
- II Pravo na izgradnju
- III Pravo na obavljanje proizvodnje električne/toplotne energije

Izvori prava

- Zakon o energetici (“Sl. Glasnik RS” br. 84/04)
- Zakon o rudarstvu (“Sl. glasnik RS” br. 44/95, 85/05-dr.zakon, 101/05-dr.zakon, 34/06 i 104/09)
- Zakon o geološkim istraživanjima (“Sl.glasnik RS”, br. 44/95)
- Zakon o utvrđivanju i razvrstavanju rezervi mineralnih sirovina i prikazivanju podataka geoloških istraživanja (“Sl.list SRJ” br. 12/98 i 13/98)
- Zakon o planiranju i izgradnji (“Sl. glasnik RS” br. 72/09 i 81/09)
- Zakon o zaštiti životne sredine (“Sl. glasnik RS” br. 135/04 i 36/09)
- Zakon o vodama (“Sl. glasnik RS” br. 30/10)
- Zakon o koncesijama (“Sl. glasnik RS” br. 55/03)
- Zakon o javnim preduzećima i obavljanju delatnosti od opšteg interesa (“Sl. glasnik RS” br. 25/00, 25/02, 107/05 i 108/05)
- Zakon o komunalnim delatnostima (“Sl. glasnik RS” br. 16/97 i 42/98)

i ostali prateći zakoni i podzakonska akta...

Nadležne institucije

- Ministarstvo rudarstva i energetike - MRE
- Jedinica lokalne samouprave - JLS
- Agencija za energetiku - AE
- Republički geodetski zavod - RGZ
- Ministarstvo poljoprivrede, šumarstva i vodoprivrede - MPŠV
- Ministarstvo životne sredine i prostornog planiranja - MŽSPP
- Nadležni sekretarijati Autonomne pokrajine
- Republički hidrometeorološki zavod - RHMZ
- Elektromreža Srbije - EMS
- Elektroprivreda Srbije - EPS

i ostale nadležne institucije u konkretnom slučaju

Od ideje do korišćenja

I Sticanje prava na na istraživanje i eksploataciju hidrogeotermalne izvora

II Sticanje prava na izgradnju objekta elektrane

III Sticanje prava na obavljanje proizvodnje električne/toplotne energije

Osnovni koraci od ideje do korišćenja (I)

I

Sticanje prava na istraživanje i eksploataciju hidrogeotermalnih izvora

I-1 Geološka istraživanja

Projekat geoloških istraživanja
Odobrenje za geološka istraživanja
Elaborat o geološkim istraživanjima
Elaborat o rezervama podzemnih voda

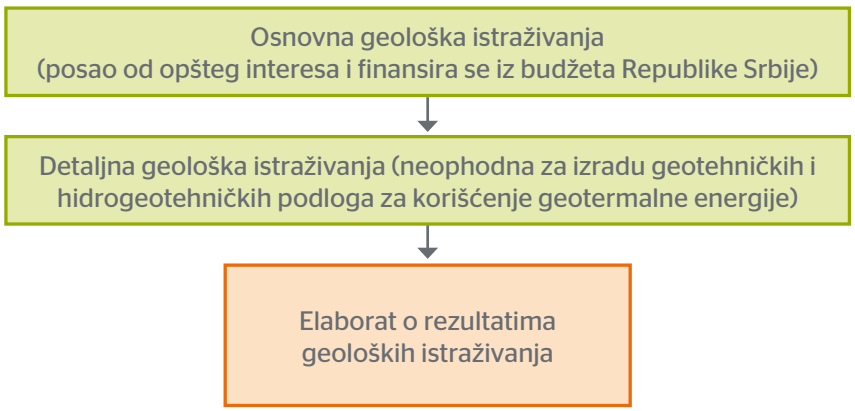
I-2 Eksploatacija hidrogeotermalne energije

Odobrenje za eksploataciju mineralnih sirovina
Odobrenje za izvođenje rudarskih radova

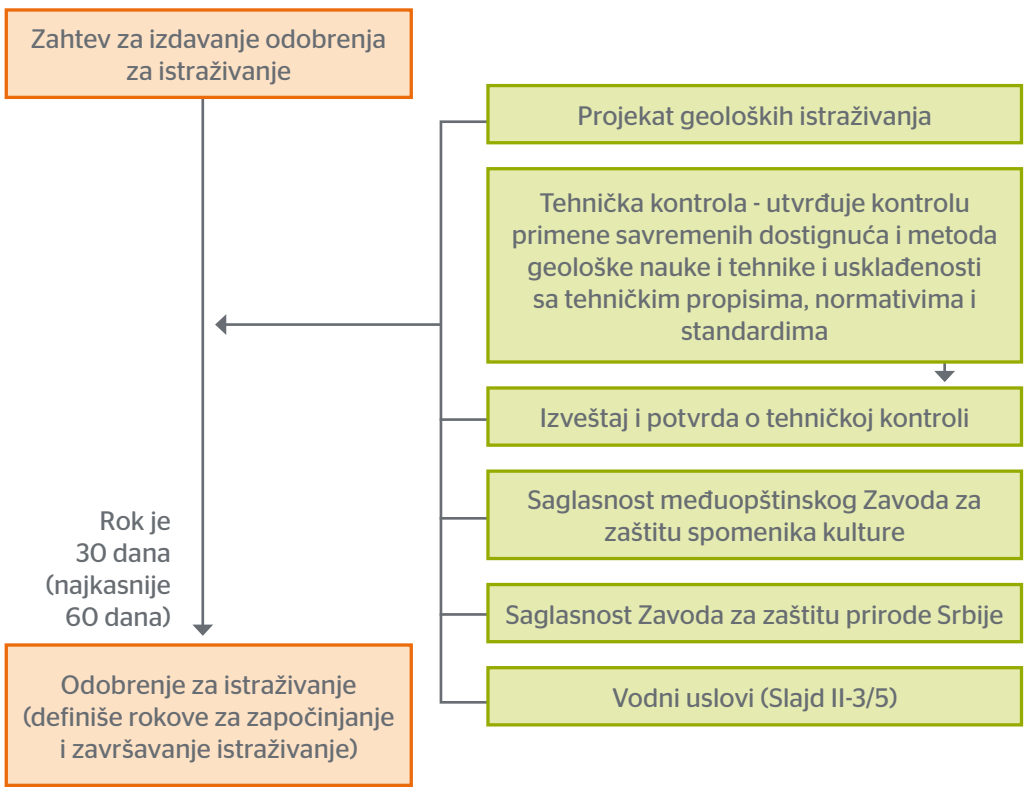
I-3 Rudarski objekti

Geološka istraživanja se sprovode u cilju da se utvrdi hidrogeološki potencijal ležišta

I-1
Geološka istraživanja



I-1
Odobrenje za geološka istraživanja



I-1

Elaborat o geološkim istraživanjima - Sadržaj -

- prikaz i ocena ranijih istraživanja
- cilj i način istraživanja
- sistematizovani prikaz podataka dobijenih terenskim istraživanjima
- prikaz i objašnjenje rezultata istraživanja
- prikaz rezervi mineralnih sirovina, uslova eksploatacije i mere zaštite životne sredine
- tehno-ekonomska ocena rezultata istraživanja

Elaborat o rezultatima geoloških istraživanja ima karakter arhivske građe i čuva se trajno, u skladu sa propisima

Nosilac istraživanja je dužan da jedan primerak elaborata dostavi organu koji mu je izdao odobrenje za istraživanje

---

I-1

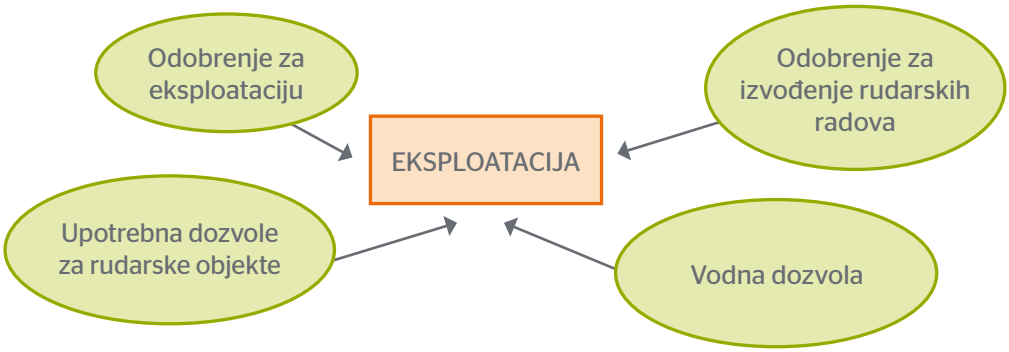
Elaborat o rezervama podzemnih voda

- Svake pete godine privredni subjekt koji vrši radove (nosilac istraživanja) dostavlja Ministarstvu životne sredine i prostornog planiranja, odnosno nadležnom organu autonomne pokrajine, Elaborat o rezervama podzemnih voda na istražnom / eksploatacionom polju, radi utvrđivanja i overavanja rezervi podzemnih voda

Elaborat o rezultatima geoloških istraživanja ima karakter arhivske građe i čuva se trajno, u skladu sa propisima

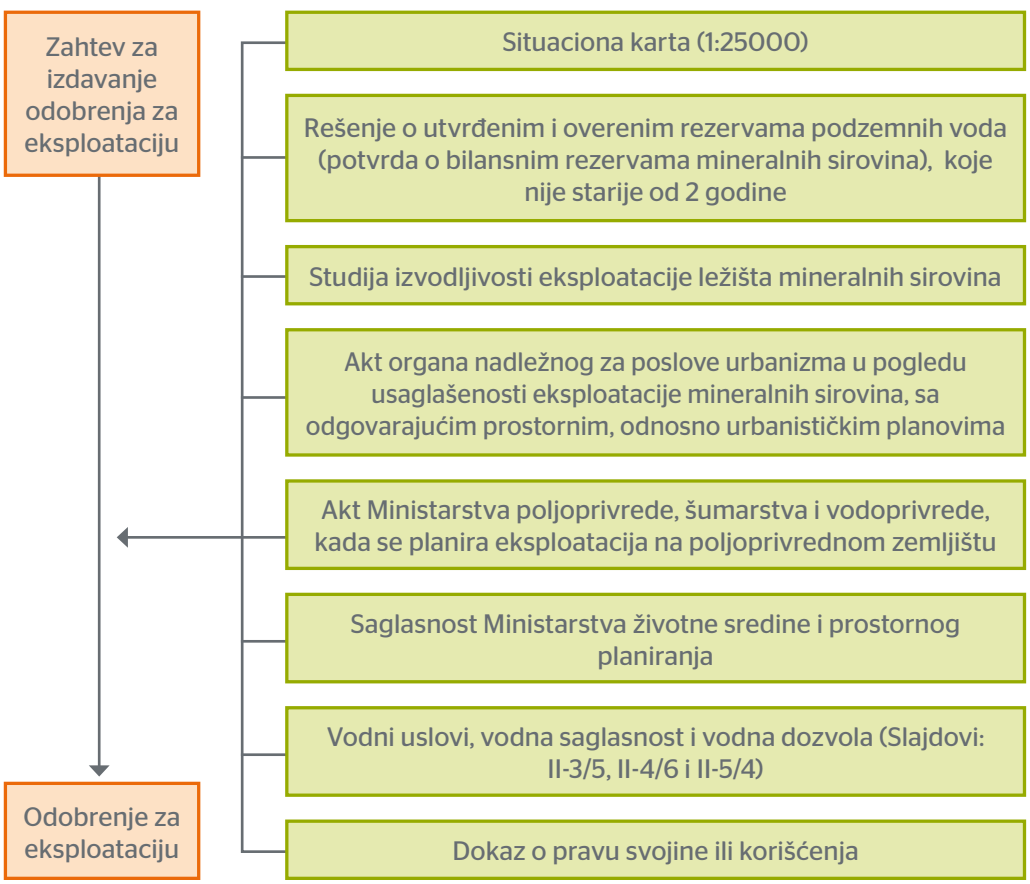
Nosilac istraživanja je dužan da jedan primerak elaborata dostavi organu koji mu je izdao odobrenje za istraživanje

Eksploatacija hidrogeotermalne energije je postupak korišćenja hidrogeotermalne energije



I-2

Eksploatacija hidro-geotermalne energije

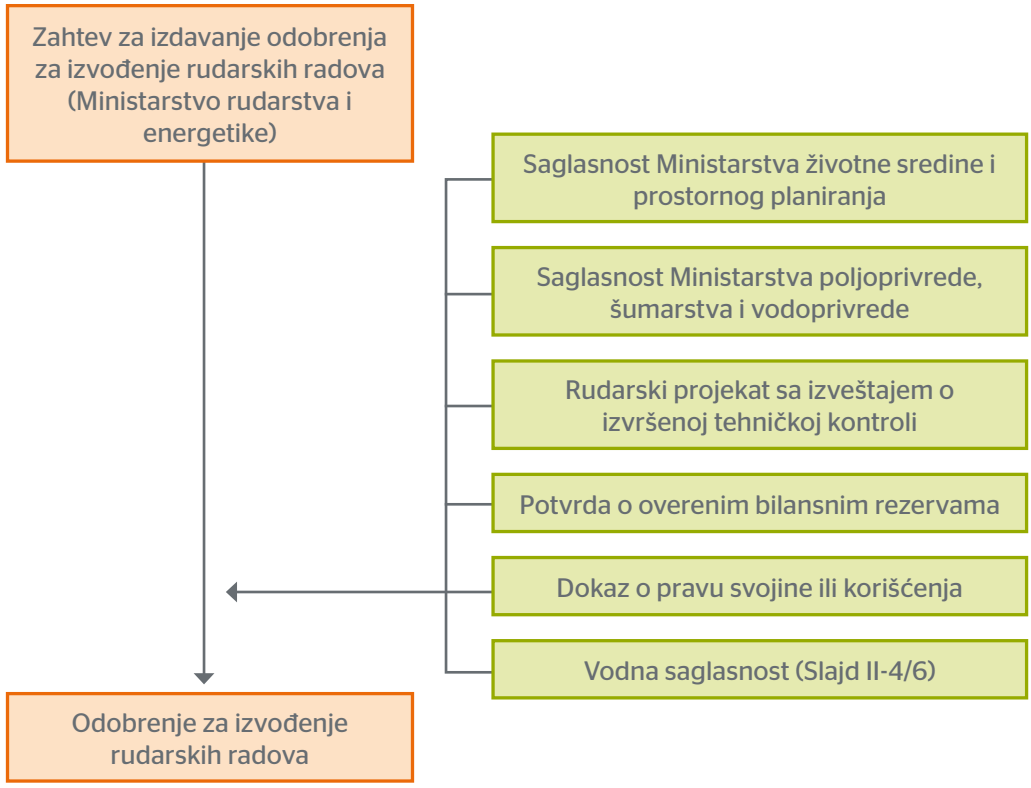


I-2

Odobrenje za eksploataciju mineralnih sirovina

I-2

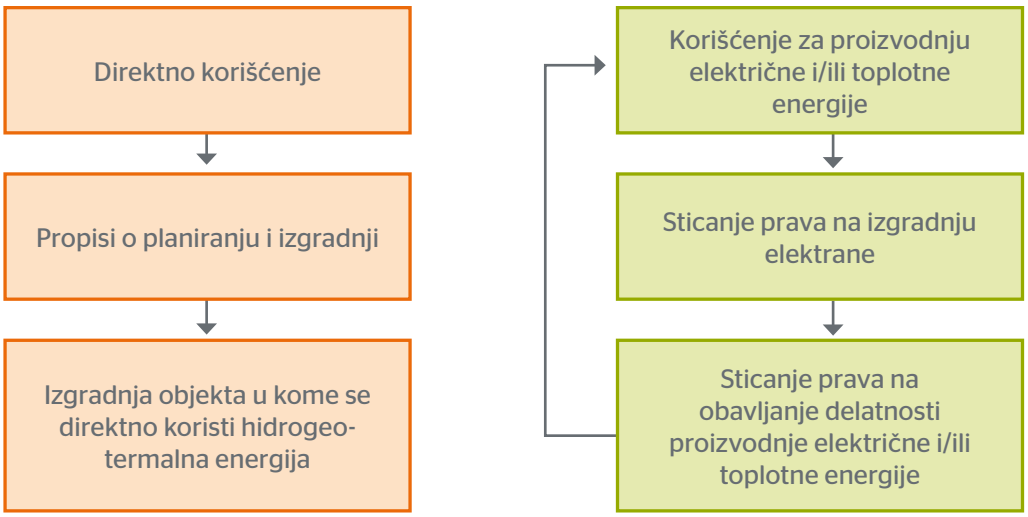
Odobrenje za izvođenje rudarskih radova



I-3

Rudarski objekti

- Rudarski objekti su vezani neposredno za tehnološki proces istraživanja, eksploatacije i transporta podzemnih voda na eksploatacionom polju
- Upotrebna dozvola za rudarske objekte je administrativni (upravni) akt koji izdaje Ministarstvo rudarstva i energetike i kojim se odobrava upotreba rudarskog objekta ili njegovog dela



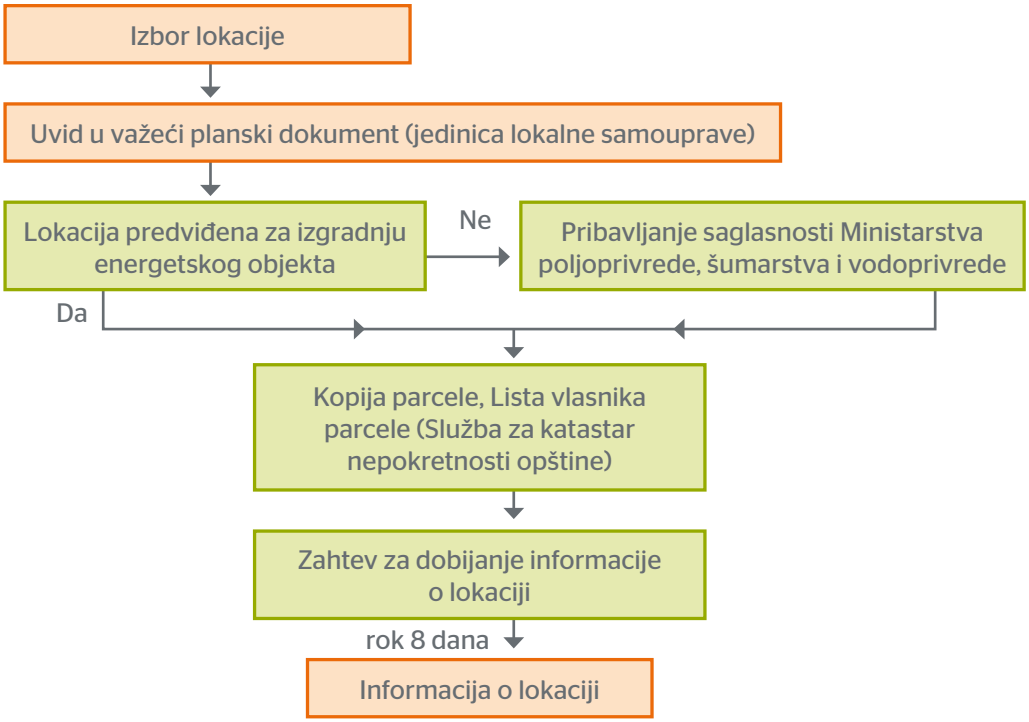
Korišćenje hidro-geotermalne energije

Osnovni koraci od ideje do korišćenja (II)

II

Sticanje prava na izgradnju i izgradnja objekta elektrane

I-1 Informacija o lokaciji
I-2 Pribavljanje energetske dozvole
I-3 Pribavljanje lokacijske dozvole
I-4 Pribavljanje građevinske dozvole
- Građenje objekta
I-5 Pribavljanje upotrebne dozvole



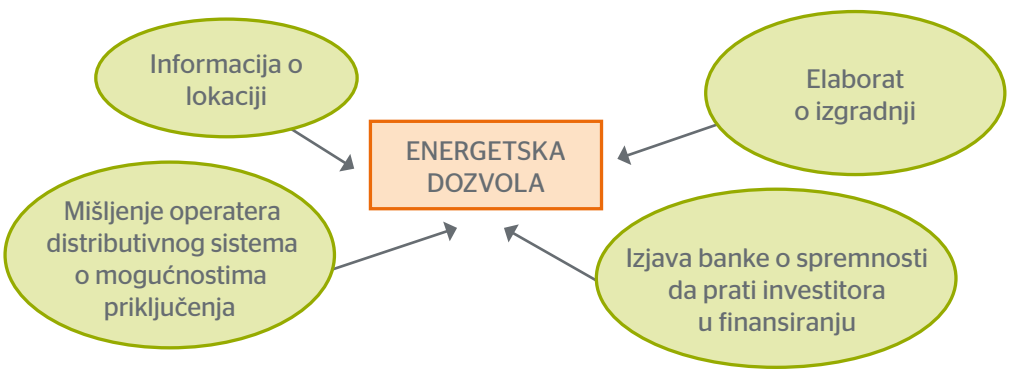
II-1

Izbor lokacije, uvid u važeće planske dokumente i informacija o lokaciji

Energetska dozvola je element sticanja prava na izgradnju energetskog objekta, koji se pribavlja u skladu sa Programom ostvarivanja Strategije razvoja energetike Republike Srbije

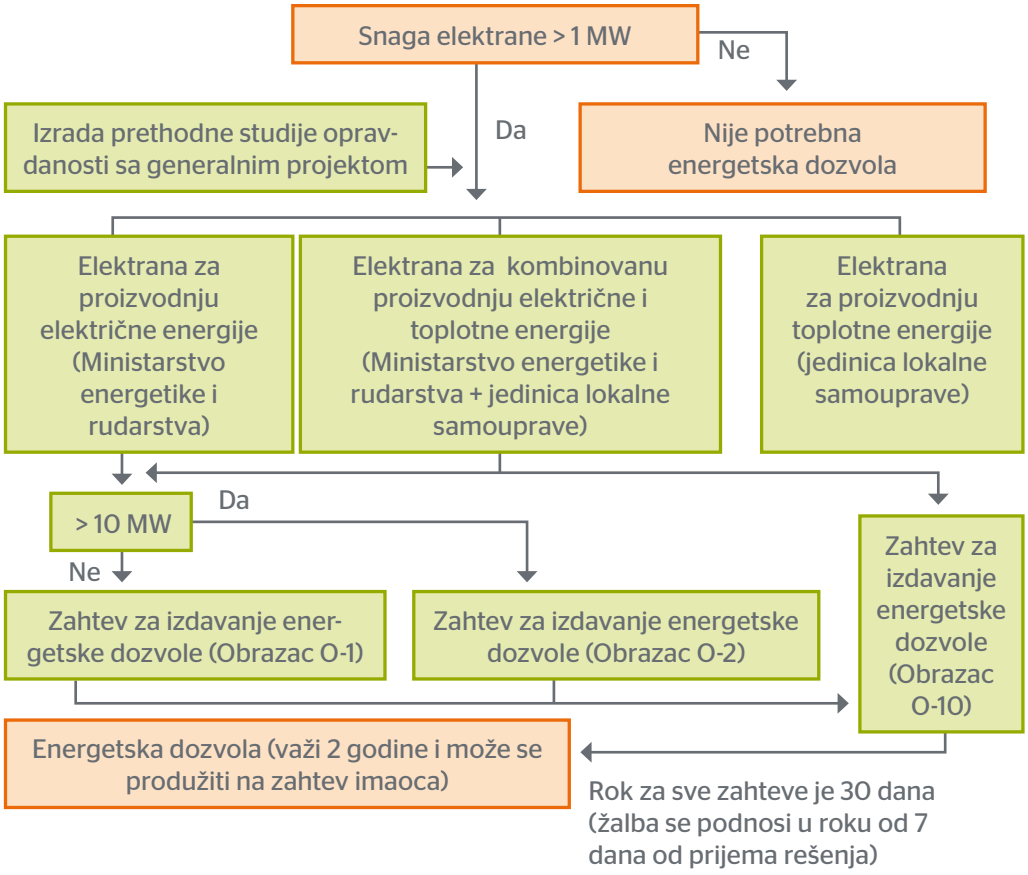
II-2

Energetska dozvola



II-2

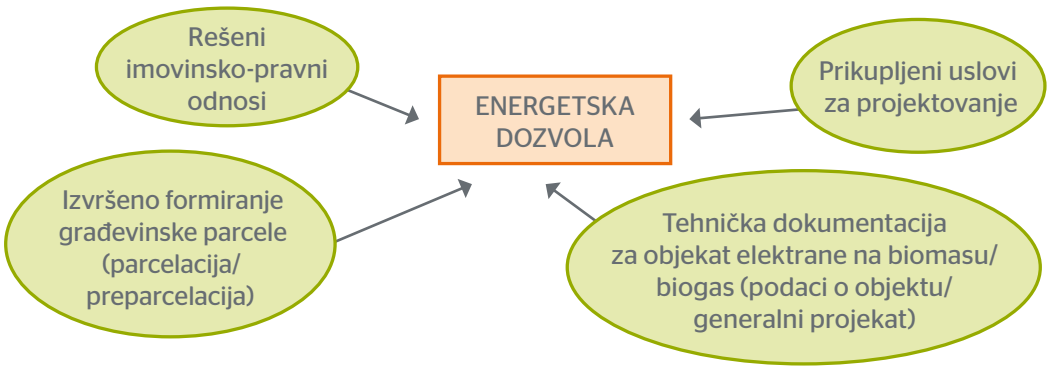
Pribavljanje energetske dozvole



II-3

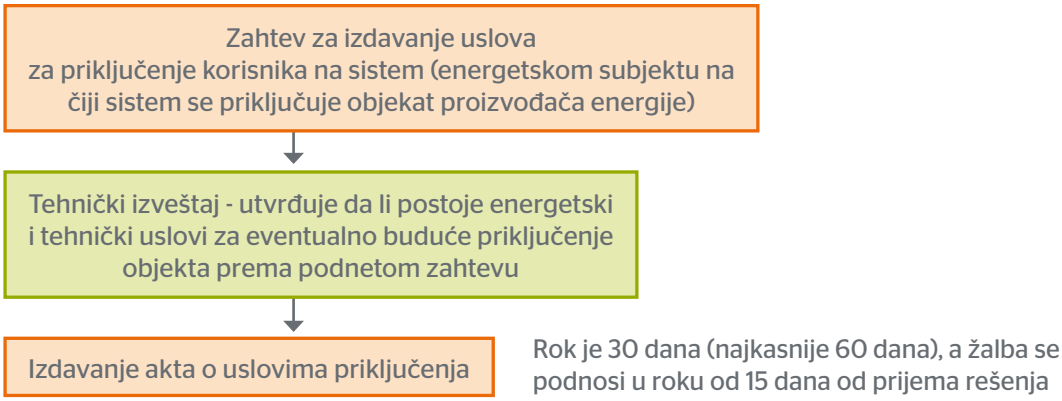
Lokacijska dozvola

Lokacijska dozvola sadrži sve uslove i podatke potrebne za izradu tehničke dokumentacije, glavnog projekta, a u skladu sa važećim planskim dokumentom



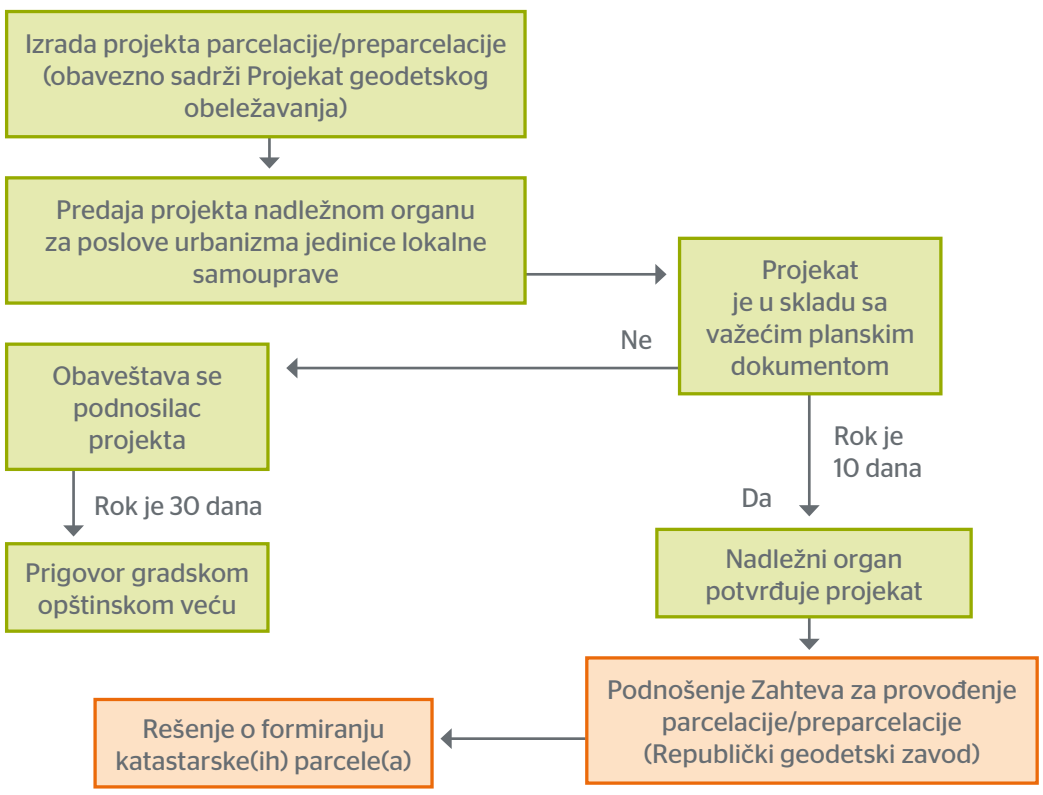
II-3

Uslovi za priključenje na elektro-energetsku i/ili mrežu za daljinsko grejanje

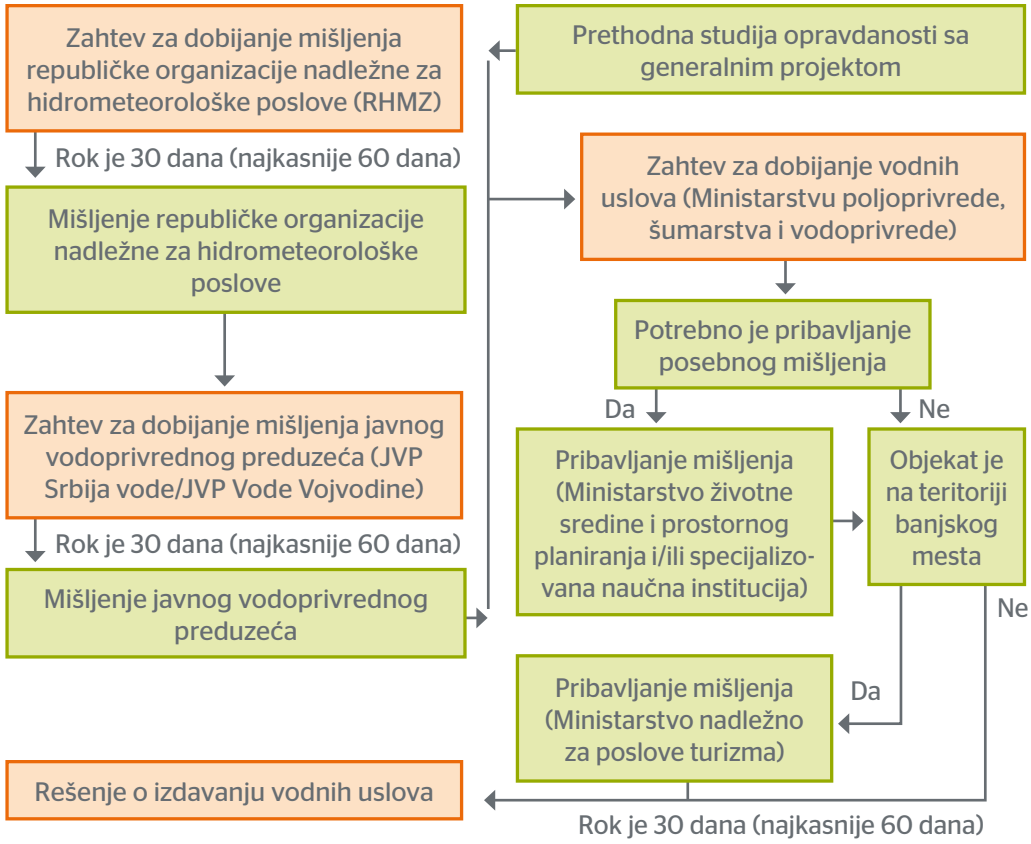


II-3

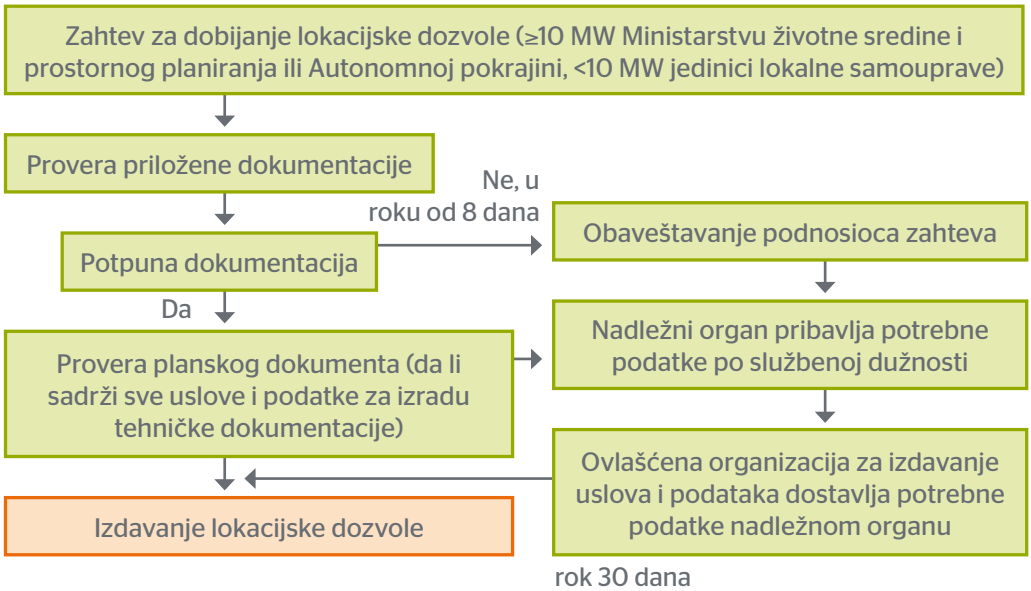
Formiranje građevinske parcele



II-3
Vodni uslovi



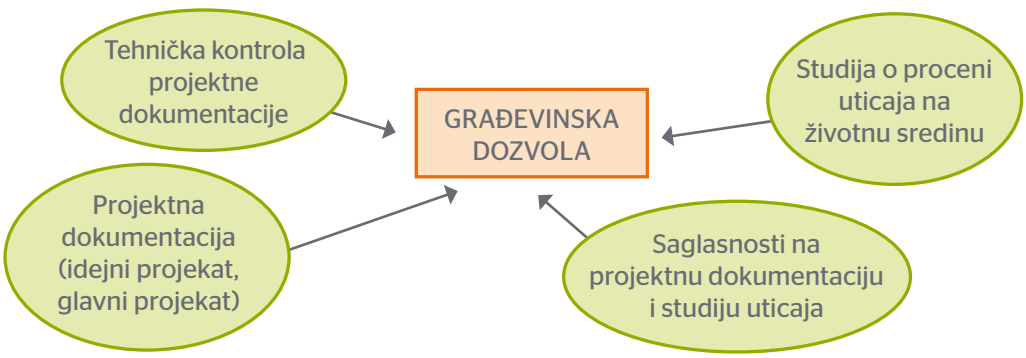
II-3
Pribavljanje lokacijske dozvole



Po izvršenoj tehničkoj kontroli glavnog projekta i pozitivnom izveštaju o izvršenoj tehničkoj kontroli, nadležnom organu jedinice lokalne samouprave podnosi se zahtev za izdavanje građevinske dozvole

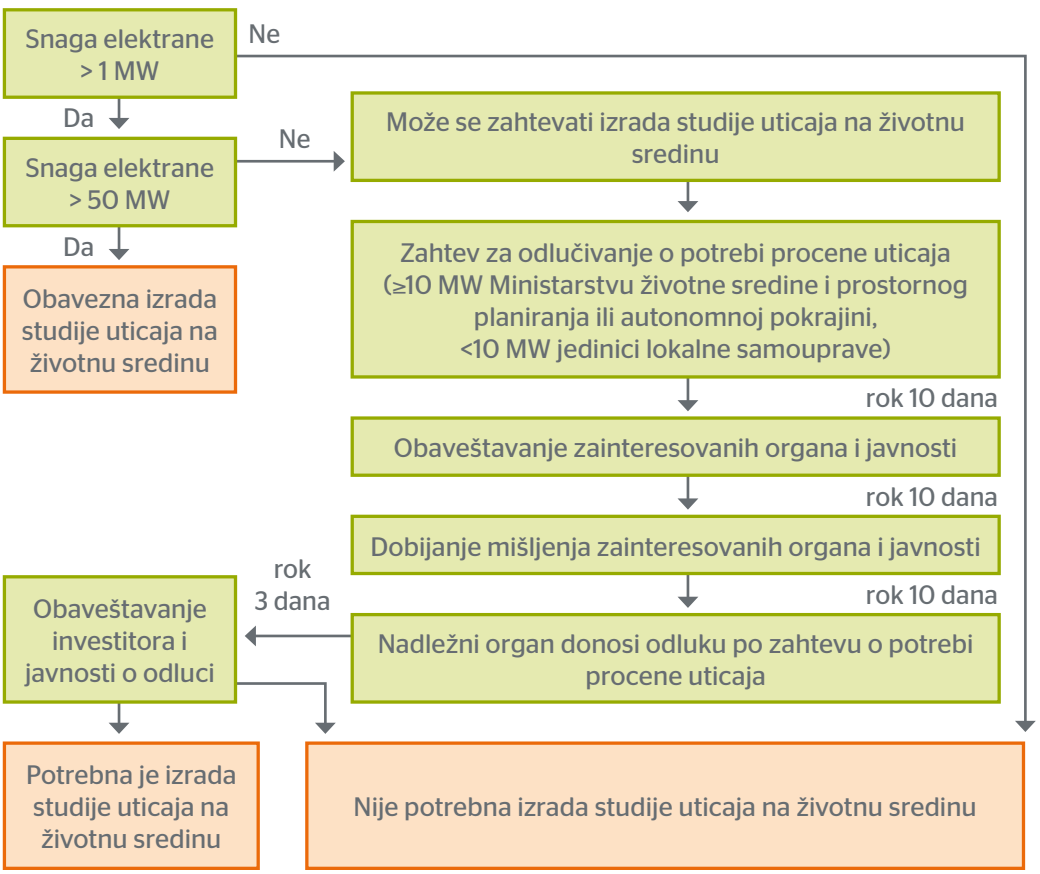
II-4

Građevinska dozvola



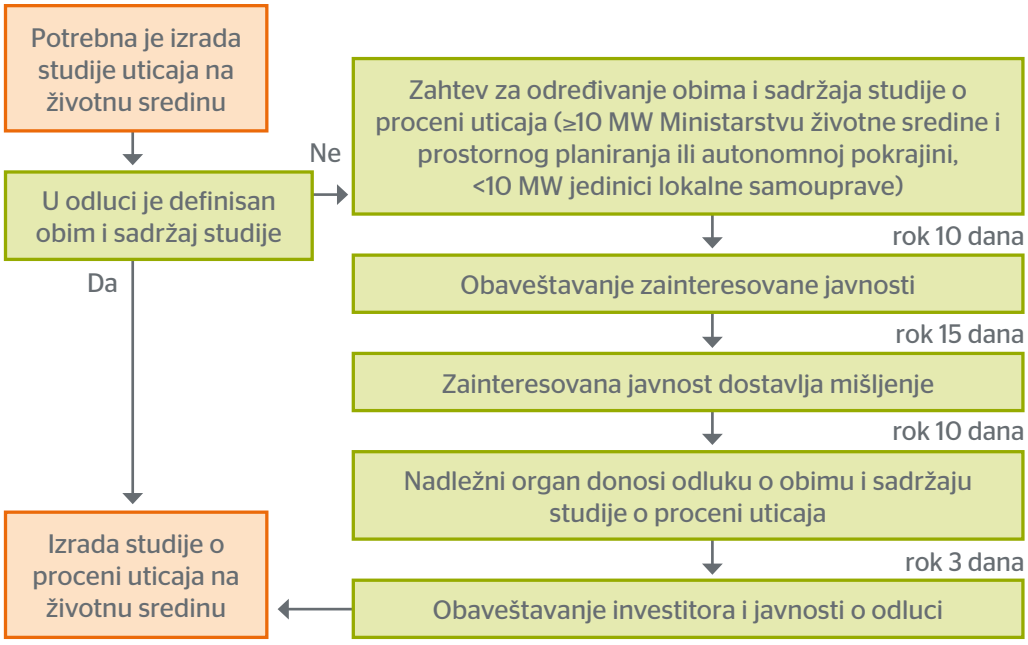
II-4

Procena uticaja na životnu sredinu (1)



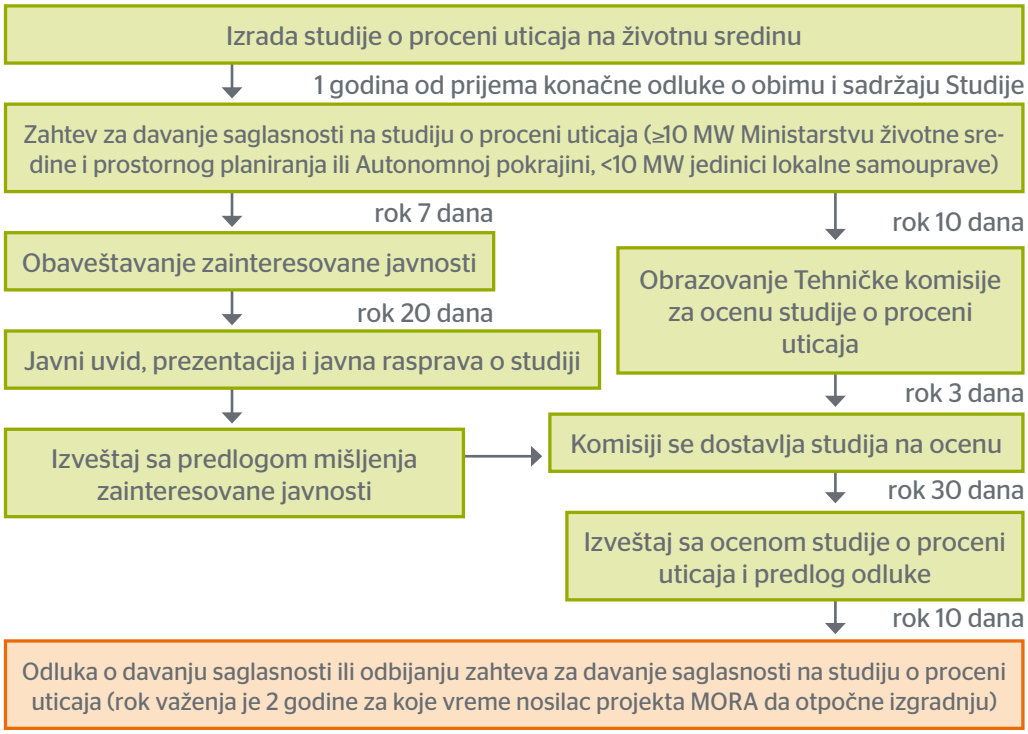
II-4

Procena uticaja na životnu sredinu (2)

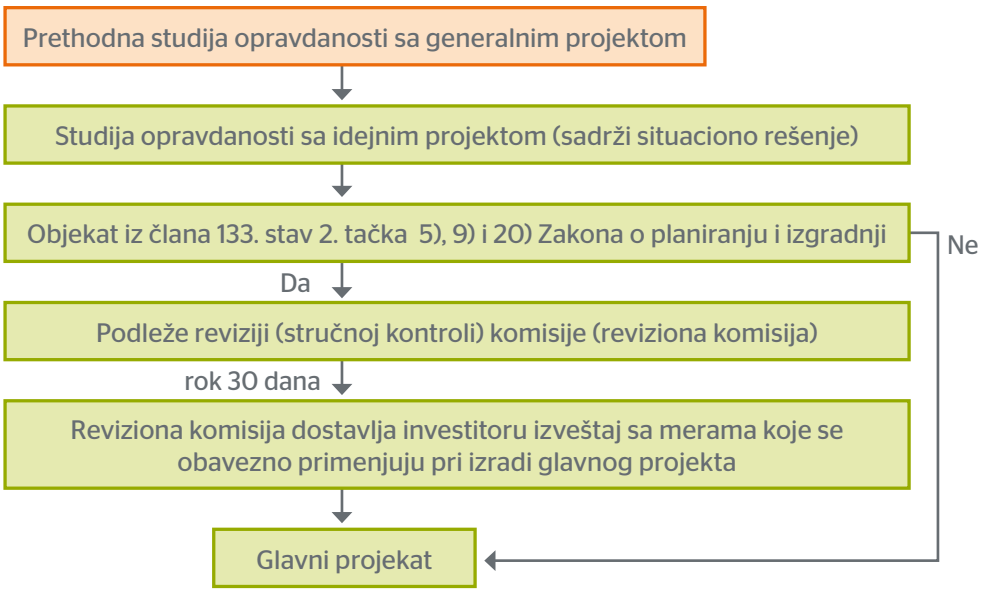


II-4

Procena uticaja na životnu sredinu (3)

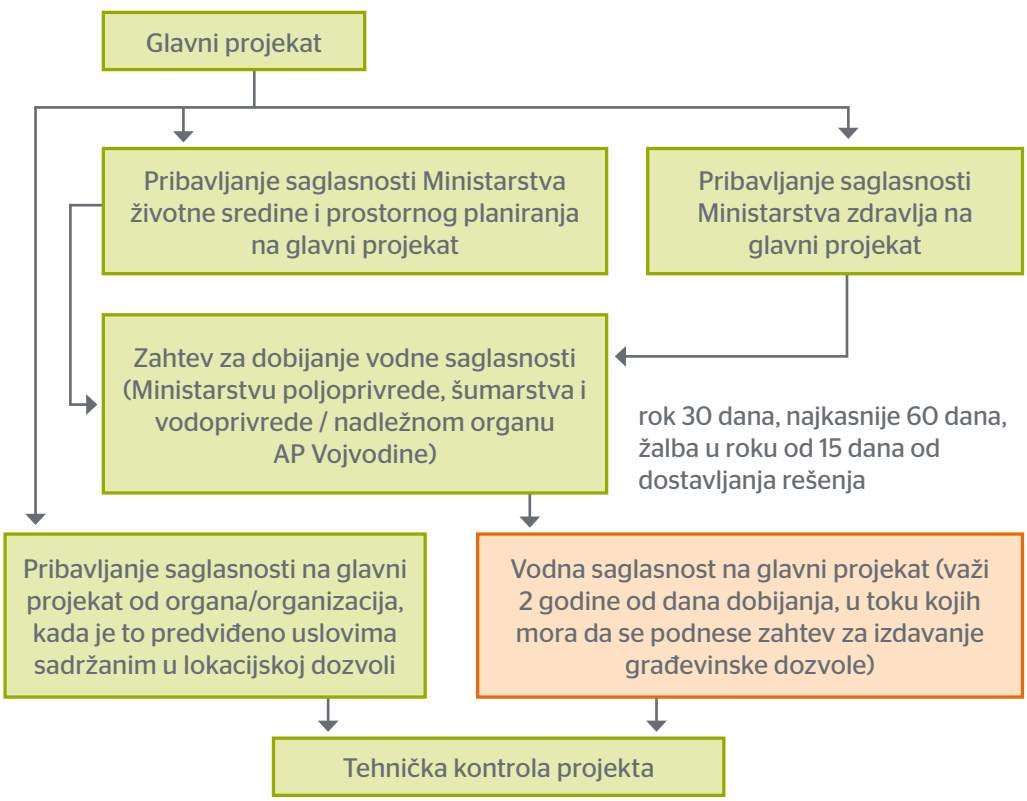


Tehnička dokumentacija



II-4

Vodna saglasnost i tehnička kontrola projekta



II-4

Građevinska dozvola* - prilozi uz zahtev

- Lokacijska dozvola
- Glavni projekat u tri primerka sa izveštajem o izvršenoj tehničkoj kontroli i potvrdom o ispravnosti
- Dokaz o pravu svojine, odnosno pravu zakupa na građevinskom zemljištu (priloženo i za lokacijsku dozvolu)
- Dokaz o uređivanju odnosa u pogledu plaćanja naknade za uređivanje građevinskog zemljišta
- Dokaz o uplati administrativne takse
- Energetska dozvola (ako je snaga elektrane veća od 1 MW).

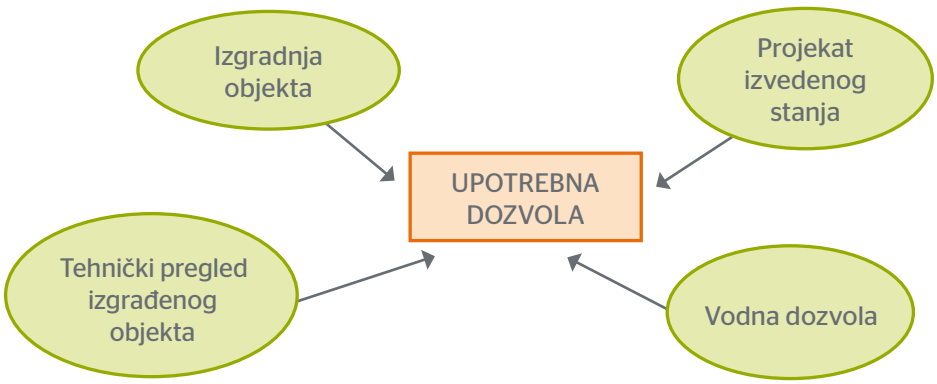
*** Za objekte za koje građevinsku dozvolu izdaje Ministarstvo, odnosno autonomna pokrajina, uz zahtev se podnosi i izveštaj revizione komisije.**

II-4

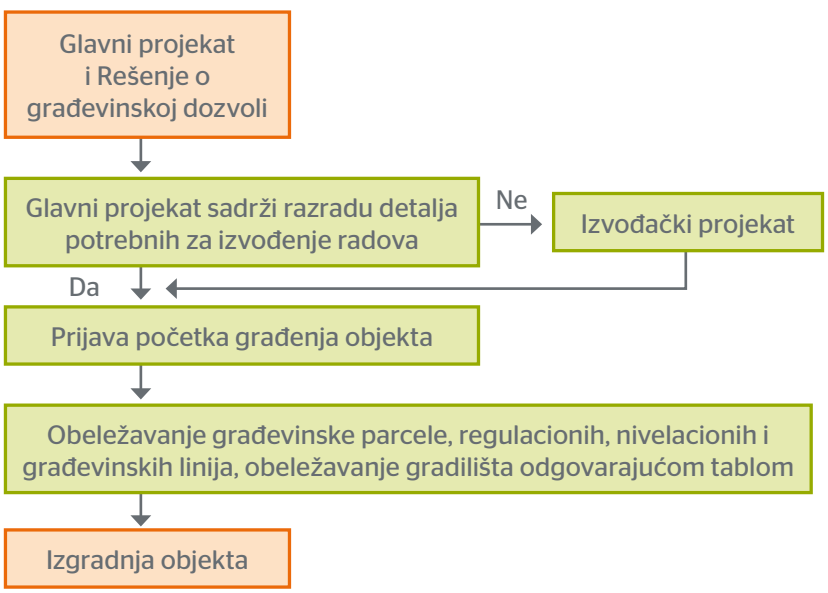
Pribavljanje građevinske dozvole

II-5 Upotrebna dozvola

- Podobnost objekta za upotrebu utvrđuje se tehničkim pregledom
- Objekat se može koristiti po prethodno pribavljenoj upotrebnoj dozvoli
- U procesu dobijanja upotrebne dozvole potrebno je priložiti projekat izvedenog stanja

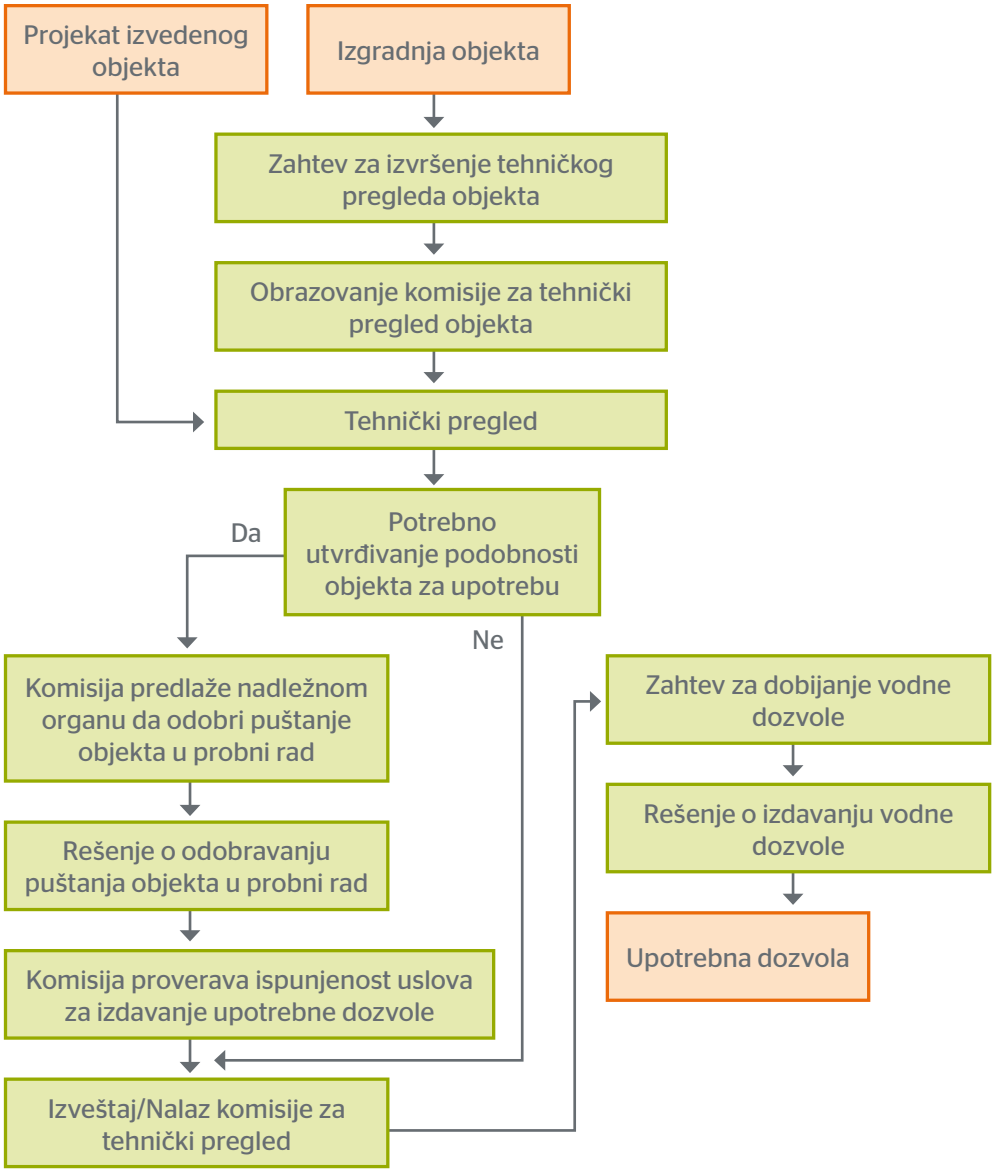


II-5 Izgradnja objekta



II-5

Tehnički pregled i upotrebna dozvola



Osnovni koraci od ideje do korišćenja (III)

III

Sticanje prava na obavljanje proizvodnje električne/toplotne energije

III-1 Sticanje prava na obavljanja delatnosti od opšteg interesa

III-2 Koncesija

III-3 Licenca

III-4 Odobrenje za priključenje

III-5 Sticanje statusa povlašćenog proizvođača

III-6 Obavljanje delatnosti proizvodnje električne/toplotne energije

III-1

Pravo na obavljanje proizvodnje električne energije - način sticanja

- Preduslov za obavljanje delatnosti proizvodnje električne/ toplotne energije i za pribavljanje licence
- Postoji više modela

1. Ulaganje u zavisna društva javnog preduzeća
   - Ima jasne i relativno kratke procedure
   - Potencijalni problem - matično javno preduzeće teško dozvoljava većinski udeo Investitora
   - Rizik - velik stepen diskrecione vlasti osnivača javnog preduzeća

Ili

2. Poveravanje prava obavljanja delatnosti od opšteg interesa
   - Investitor stiče pravo tek po zaključivanju ugovora o poveravanju, a ugovor se zaključuje tek posle izgradnje objekta
   - Jednostavnija procedura u praksi u odnosu na koncesije
   - Najčešće primenjivano u praksi

Ili

3. Dodeljivanje koncesija
   - Investitor stiče pravo kroz jasno definisanu proceduru na samom početku
   - Obaveza osnivanja novog privrednog subjekta
   - Najdugotrajniji postupak

III-1

Poveravanje obavljanja delatnosti od opšteg interesa

Proizvodnja električne energije republička delatnost od opšteg interesa (nadležnost: Ministarstvo rudarstva i energetike)

↓

Zaključenje Ugovora o poveravanju delatnosti od opšteg interesa proizvodnje električne energije

Proizvodnja toplotne energije komunalna delatnost (nadležnost: jedinica lokalne samouprave)

↓

Zaključenje Ugovora o poveravanju obavljanja komunalnih delatnosti (proizvodnja toplotne energije)

- Adekvatna tehnička opremljenost (pravo vlasništva ili pravo korišćenja elektrane, koja je izgrađena u skladu sa zakonom, tehničkim i drugim propisima)
- Kadrovska osposobljenost (da lica koja rade u elektrani imaju neophodnu stručnu spremu i druga propisana znanja)
- Sprovođenje propisane zaštite na radu
- Ostvarivanje propisanih uslova i načina zaštite i unapređenja životne sredine

III-1

Ugovor o poveravanju delatnosti - uslovi koji moraju biti ispunjeni

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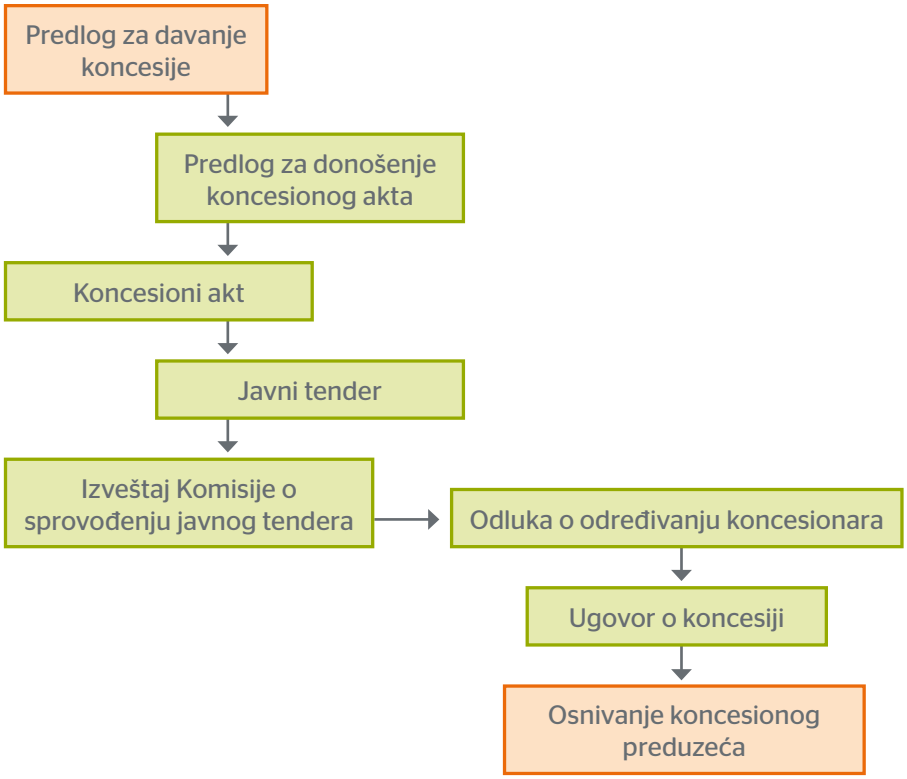
- Rad i poslovanje privrednog subjekta kome se poverava ova delatnost
- Obaveze privrednog subjekta u pogledu obezbeđivanja uslova za kontinuirano, uredno i kvalitetno zadovoljavanje potreba korisnika proizvoda i usluga
- Međusobna prava i obaveze ugovornih strana u slučaju kada nisu obezbeđeni ekonomski i drugi uslovi za obavljanje delatnosti od opšteg interesa
- Prava i obaveze u slučaju poremećaja u poslovanju privrednog subjekta
- Druga prava i obaveze i pitanja koja su od značaja za ostvarivanje zaštite opšteg interesa

III-1

Ugovor o poveravanju delatnosti - sadržaj/ odredbe

III-2

Koncesija



III-2

Koncesija - sadržaj ugovora o koncesiji

- Ugovorne strane, predmet koncesije, uključujući opis objekata i uređaja
- Rok trajanja koncesije i uslovima pod kojim se taj rok može produžiti
- Način i rokovi obezbeđivanja sredstava za finansiranje koncesione delatnosti (finansijski plan) i dinamika njihovog ulaganja, visina i način obezbeđenja garancija za izvršavanje koncesione obaveze
- Uslovi obavljanja koncesione delatnosti
- Standardi proizvoda i usluga, transfer tehnologije
- Kriterijumi za određivanje cena-tarifa proizvoda i usluga za krajnje korisnike
- Koncesiona naknada (visina, rokovi, uslovi i način plaćanja)
- Prava i obaveze u pogledu preduzimanja mera obezbeđivanja opšte sigurnosti, zaštite zdravlja i zaštite životne sredine kao i odgovornosti za naknadu štete prouzrokovane ugrožavanjem opšte sigurnosti i zaštite životne sredine
- Prava na prenos koncesije
- Vreme i način predaje nepokretnosti, objekta, uređaja ili postrojenja i stanje u kome se oni moraju predati
- Uslovi izmena ili raskida ugovora i njihove posledicae, promenjene okolnosti i viša sila
- Način rešavanja sporova i primena merodavnog prava, kontrola i sl.

- Nije propisana tenderska procedura
- nije utvrđena obaveza utvrđivanja mesta obavljanja delatnosti proizvodnje električne energije (ukoliko se ugovorom ne veže za konkretan objekat
- nije utvrđen maksimalan rok obavljanja delatnosti od opšteg interesa (ukoliko se ugovorom ne definiše)
- nije propisana obaveza utvrđivanja obima obavljanja delatnosti
- nije propisana obaveza plaćanja bilo kakve naknade za obavljanje delatnosti od opšteg interesa

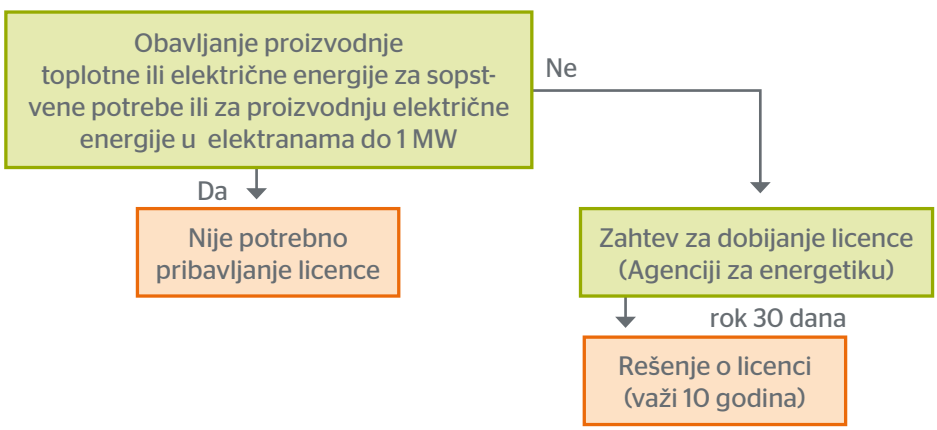
III-2

Ugovor o poveravanju u odnosu na koncesiju - osnovne razlike

- Licenca je dozvola za obavljanje energetske delatnosti koju izdaje Agencija za energetiku Republike Srbije
- Potrebna samo za elektrane snage od 1MW i veće

III-3

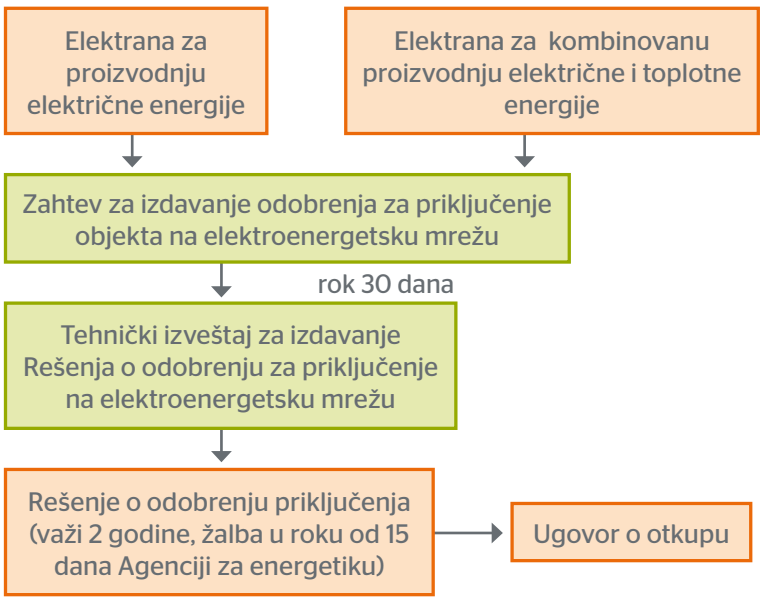
Licenca - Pribavljanje licence



III-4

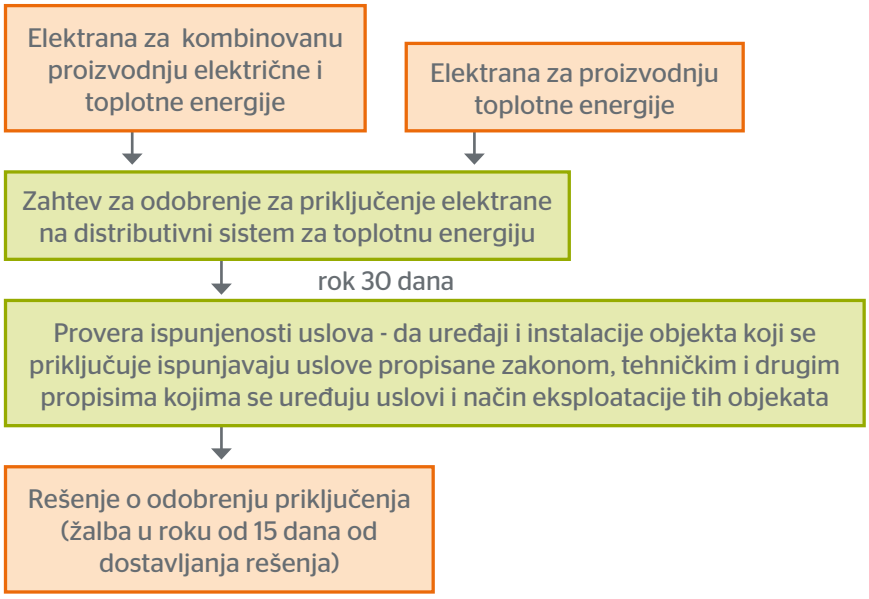
Odobrenje za priključenje elektrane ne elektroener-getsku mrežu

Preduslov da se električna i/ili toplotna energija dopremi do potrošača



III-4

Odobrenje za priključenje elektrane na mrežu za distribuciju toplotne energije



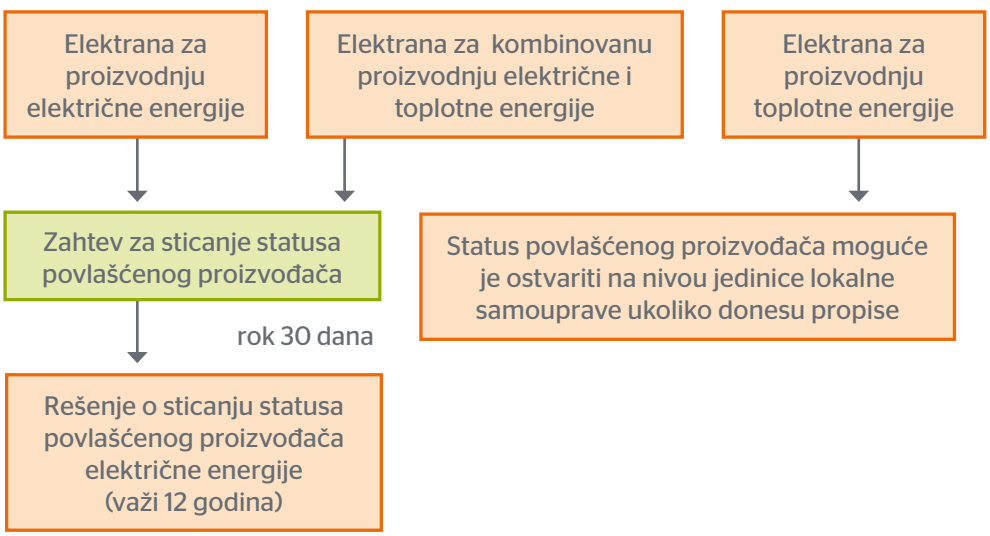
III-5 Status povlašćenog proizvođača

- Pravo prioriteta na organizovanom tržištu u odnosu na druge proizvođače koji nude energiju pod jednakim uslovima
- Pravo na subvencije (poreske, carinske i druge olakšice)

Mere podsticaja - Feed-in tarife:

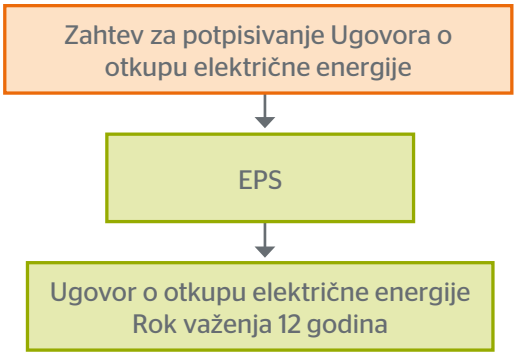
Vrsta elektrane	Instalisana snaga (MW)	Mera podsticaja - otkupna cena (cEUR/1 kWh)
na geotermalnu energiju		7,5
sa kombinovanom proizvodnjom na fosilna goriva	do 0,2 MW	Co=10,4
sa kombinovanom proizvodnjom na fosilna goriva	od 0,2 MW do 2 MW	Co=10,667-1,333*P
sa kombinovanom proizvodnjom na fosilna goriva	od 2 MW do 10 MW	Co=8,2
sa kombinovanom proizvodnjom na fosilna goriva	od 2 MW do 10 MW	Co=8,5

III-5 Sticanje statusa povlašćenog proizvođača



III-6

Ugovor o otkupu električne energije



See the detailed text of the Guide for Investors at the web site of the Ministry of Mining and Energy
Detaljno uputstvo za investitore možete pronaći na web sajtu Ministarstva rudarstva i energetike
www.mre.gov.rs

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