

# PPC's Involvement in the Application of the WFD

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Local Processes for the application of the Directives and the participation of local stakeholders



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# Let us introduce PPC - ΔΕΗ





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- Public Power Corporation S.A. (PPC) is the biggest power producer and electricity supply company in Greece
- PPC's current power portfolio consists of conventional thermal and hydroelectric power plants, as well as RES units, accounting for approximately 68% of the total installed capacity in the country
- Total installed capacity about 13 GW, of which about 3.2 GW are from HEPPs
- Seven major (storage) reservoirs of total capacity, practically attained, 5206 hm<sup>3</sup>



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# Let us introduce PPC - ΔEH

- Besides generation, HEPPs have an important role in water management, since they provide
    - Domestic water supply 130 hm<sup>3</sup>
    - Ecological flows 1000 hm<sup>3</sup>
    - Irrigation water 1400 hm<sup>3</sup> for 2500 km<sup>2</sup> of agricultural land, out of a total of 13700 km<sup>2</sup> of irrigated land
    - Recreation facilities
    - Other uses, such as cooling water
  - From another aspect, PPC is held responsible for ecological deterioration of river habitats because of damming
  - Lignite mining activities of PPC interfere with water resources
- ➔ PPC is closely involved with the application of the WFD



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## PPC's involvement - preparatory stages

- During the preparatory stages of the WFD, PPC actively participated by providing consultation to the responsible bodies of the Greek Administration
- PPC personnel represented Greece in the HMWBs Working Group. In this context, PPC undertook the elaboration of a pilot study of the transboundary (GR-BUL) river Nestos. The study revealed the problems associated with the designation of HMWBs



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## PPC's involvement - WFD enactment

- After WFD was enacted, the Greek Administration faced the challenge to timely proceed into the necessary reforms in terms of legislation and establishing competent authorities for the application of the WFD.
- In this stage, PPC was again present offering its expertise in water issues and participating in relevant consultations of the Authorities.



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## PPC's involvement - WFD application

- When the Special Secretariat for Water (SSW) initiated the main phase of the WFD application, which is the preparation of the RBDMPs, the support of PPC was twofold;
- PPC put at the disposition of the SSW the company's hydrological data, whose quality is regarded highly in the Greek hydrological community. Moreover, PPC supplied the SSW with all required data regarding reservoir operation (modes of operation, releases to meet 3<sup>rd</sup> parties' requirements, compulsory releases, water quality data, environmental reports, etc.)
- PPC participated actively in the public consultation phase that followed the preparation of the draft plans, with thorough comments and ameliorating proposals



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## Status (potential) of PPC related WBs

- Although damming, in general, causes hydromorphological alterations in the natural environment, all PPC reservoirs, by serving multiple purposes, maximize the benefits to society under the same cost. HMWBs.
- Hydropower is a clean source of energy, non-greenhouse emitting and renewable (non consumptive use).
- HEPPs change the flow dynamics downstream (HMWBs) mainly by increasing summer flows and partially absorbing winter floods.
- In many cases, data to support the appraisal of the WBs' status (potential) were insufficient (status unknown). Few cases of moderate potential.
- The environmental flow regulations for PPC dams have been determined and they are adhered to, but their ecologic efficacy cannot be established because of lack of data.
- There are problems of imported pollution in trans-boundary basins (Thissavros reservoir on river Nestos).



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## PPC's compliance with the P.o.M.

PPC complies with all proposed measures;

- An environmental monitoring program has been initiated in all PPC reservoirs to increase the amount and quality of data for a better assessment of the WB status (potential).
- Environmental terms, including releases of environmental flows, are strictly obeyed.
- In one case (Temenos reservoir), the P.o.M. has suggested the construction of a re-regulating reservoir downstream, to alleviate hydro-peaking. PPC supports the idea.
- PPC is closely collaborating with Irrigation Authorities to better allocate irrigation releases.
- The proposed re-assessment of the ecological flows downstream of the Acheloos cascade has been conducted and submitted. Approval is pending.



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## Why WFD matters for PPC

- By all means, PPC is favorable to all policies protecting and upgrading the environment, such as the WFD, being itself a public utility company, highly concerned about public goods.
- The WFD has brought a certain amount of order in the field of integrated water management which was previously insufficiently regulated/structured. A clear-cut and concrete regulatory and administrative environment, in which PPC can deploy its activities, is mostly desirable.
- The application of the WFD may reveal, for the first time, the hidden economic benefits that society enjoys owing to the PPC's water works & activities, let alone electricity generation.
- Last but not least, the resolution of quantitative and qualitative river problems of the trans-boundary river Nestos (where two HEPPs lie) may be put in perspective. To this end, PPC is narrowly collaborating with the SSW in issues of trans-boundary cooperation.



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*Thank you for your attention!*



Polyphyton Reservoir