Needs and Objectives of Annex XVI in Japan

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Objectives of Annex XVI

• “Hidden hydro opportunities” can be identified from such as:
  - review and update of existing hydropower inventories
  - improvement of existing power plant performance
  - adding power to non-power dams and water management facilities

• Overall objectives of the annex is to provide a framework to enable and support development of hidden hydro opportunities globally.
Work Plan

• Work plan is consisted of four tasks:
  1. Updating hydropower inventories
  2. Improving performance from existing hydropower
  3. Adding power to non-power dams and water management facilities
  4. Hydropower technology research and innovation in the context of hidden hydro opportunities
Outputs

• Major outputs and contributions to the annex:
  ➢ Summary report by October 2020
  ➢ Methodologies to identify and estimate hidden hydro potential
  ➢ Case histories of successful development of hidden hydro opportunities
  ➢ Needs for research and innovation to increase development of hidden hydro opportunities
  ➢ Roadmap to enable and support development of hidden hydro opportunities globally
Needs in Japan

• Needs of the annex in Japan are to:

  ➢ verify a development process of hidden hydro opportunities since the existing inventory surveys.

  ➢ accelerate an increased development of hidden hydro opportunities to the 2030 target.
**Recent Hydropower Inventories in Japan**

**National Potential Survey (1980-1986)**
- Developed: 21GW
- Undeveloped: 12GW


**Upgrade Potential Survey (2012)**

**Excluded:**
- NP facilities
- < 0.1MW
- Legally

**Present state (2017):**
- Developed: 23GW
- Undeveloped: 11GW

**Source:** ANRE, METI
Hidden Hydro Potential in Japan

• Reducing barriers to new projects by reviewing and updating development criteria on hydropower inventories and by introducing innovative technologies

• Improving existing plant performance with and without R&U

• Adding power to various types of non power dams and water management facilities cost efficiently and environmentally friendly
Challenges to the 2030 Target

- Update of criteria on hydropower inventories
- Update of R&U strategy
- Effective use of multipurpose reservoirs

Total Increase: 0.8-3.0GW

2030 target of capacity increase in hydropower (ANRE, METI, 2015)
Thank you for attention!