

# ENERGY STORAGE PARTNERSHIP

November 2019

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# ENERGY MANAGEMENT ASSISTANCE PROGRAM (ESMAP)



- ✓ Partnership between World Bank and 18 partners
- ✓ to help reduce poverty through sustainable energy solutions.

## PROVIDING TECHNICAL ASSISTANCE AND CUTTING-EDGE KNOWLEDGE



**ENERGY  
ACCESS**



**RENEWABLE  
ENERGY**



**ENERGY  
EFFICIENCY**



**ENERGY  
SUBSIDY REFORM**



**GOVERNANCE,  
MARKETS, AND  
PLANNING**



**KNOWLEDGE  
HUB**

**and two cross cutting areas:**

- Gender
- Small island developing states

**Inform Development  
Financing**

**Inform Policy and  
Strategy and Increase  
Client Capacity**

**Deepen Knowledge  
and Generate  
Innovative Solutions**

800 million people still lacking access to electricity

6x renewable energy capacity increase by 2030

## Goal 7:

Ensure access to affordable, reliable, sustainable and modern energy for all.



### Targets by 2030

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- 7.1 Ensure universal access to affordable, reliable and modern energy services
- 7.2 Increase substantially the share of renewable energy in the global energy mix
- 7.A Enhance international cooperation to facilitate access to clean energy research and technology.



# ENERGY STORAGE IS KEY TO ACCOMPLISHING 1.5°C AND SDG7 GOALS



- Wind and solar are constrained by **variability**.
- Energy storage increases **system flexibility** helping to:
  1. improve **energy access** through minigrids;
  2. reduce **GHG emissions** displacing fossil-fuels with renewables.
- Battery storage is **modular** and **universally deployable**.

# HOWEVER, MARKET FOR STATIONARY BATTERIES IS STILL NASCENT

- Concessional finance can **bridge financial viability gap**.
- **Shift the market focus** to stationary storage in developing countries:
  - ✓ Sustainable technologies
  - ✓ Valuation and sizing tools
  - ✓ Regulation
  - ✓ Enabling infrastructure
- Help WB countries **understand use cases** and **build capacity**.

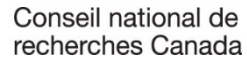
**Agreement to address these challenges through cooperation.**





# PROGRAM WILL INCREASE STORAGE KNOWLEDGE THROUGH COOPERATION

## Energy Storage Partnership



# THIS PARTNERSHIP WILL PROVIDE...

**Global public goods** approach to energy storage:

- **Building capacity** in developing countries.
- Understanding of **emerging markets**.
- Opportunities to **inform investments** and **policy dialogue**.
- Access to **country** and **project-specific information**.
- Opportunities for new technologies to **gain visibility**.
- Opportunities for **multilateral cooperation** and **responsible innovation**.





# STRONG COMPLEMENTARITY BETWEEN INVESTMENTS AND KNOWLEDGE

## BATTERY STORAGE INVESTMENT PLAN (BSIP)

Focused on batteries



Different battery technologies

Provide **lessons learned** from WBG projects

Inform on **best practices** (policy, procurement, enabling infra.)

Develop **sustainable battery solutions** for **developing countries**

## ENERGY STORAGE PARTNERSHIP (ESP)

Technology neutral



Mechanical



Electrical



Chemical



Thermal



Electro-chemical



# ESP WORKING GROUPS





# ESMAP'S PROGRAM TO BRING SUSTAINABLE STORAGE TO DEVELOPING COUNTRIES



- Support **secretariat** function of the ESP.
- Address challenges of scaling-up through **knowledge development**.
- Delivering **country grants**:
  - prefeasibility studies;
  - capacity building;
  - knowledge exchange;
  - policies, regulation and recycling; and
  - buy down cost of sustainable technologies.
- Support **test-bed development** (testing and capacity building).



## NEXT STEPS

- ✓ **Mobilize funding** for ESP work program
- ✓ Continue **R&D** program and **capacity building**
- ✓ Next meeting on **January 21 2020, in Pretoria (South Africa)**
- ✓ Deliver initial outputs from WGs on **June 2020**





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