



INTERNATIONAL
CCS KNOWLEDGE
CENTRE



**Carbon Capture & Storage
Scaling up and Pricing down**

December 5, 2018 – IETA Pavilion COP24

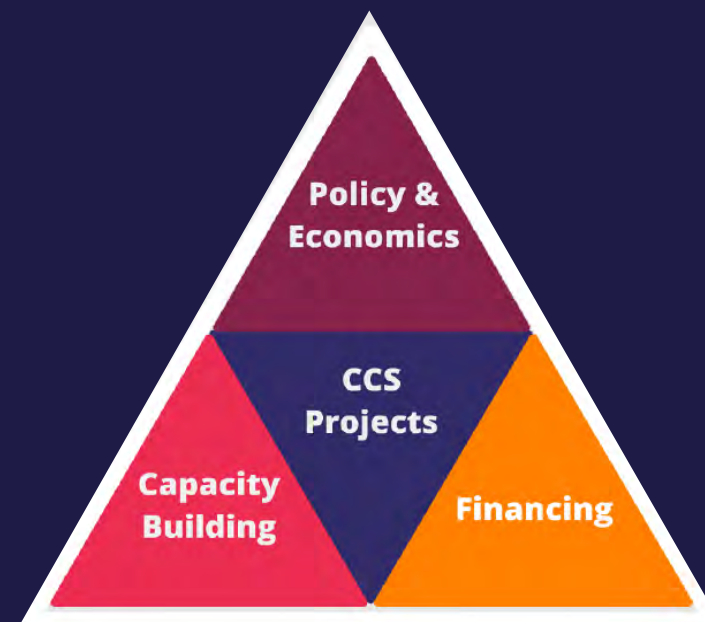
About the International CCS Knowledge Centre

The International CCS Knowledge Centre is a non-profit organization created and sponsored by BHP and SaskPower.

MISSION:

Accelerate the understanding and use of CCS as a means of managing GHG emissions.

Sharing lessons learned from hands-on operations ensures for experienced-based decision making.





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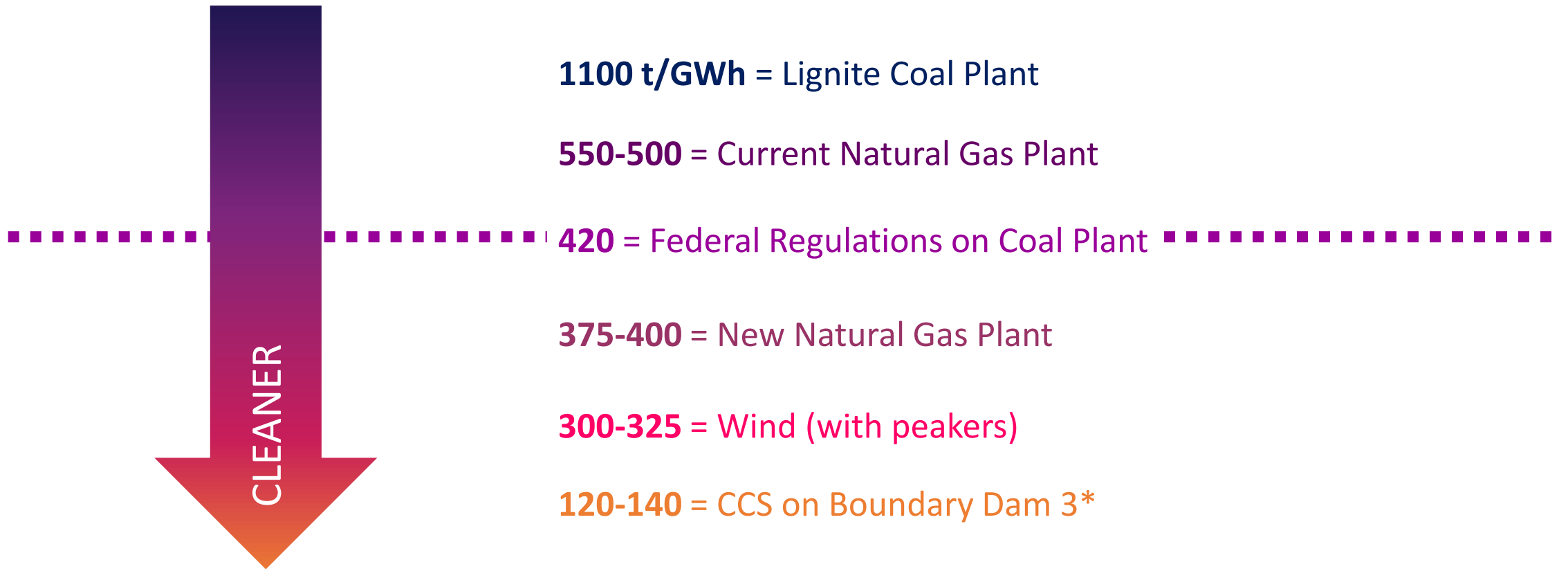
BOUNDARY DAM

LEARNING STARTS HERE

1ST INTEGRATED LARGE-SCALE POST-COMBUSTION CCS FACILITY



Operational Understandings: Exceeding Federal Regulations



*Name plate capacity

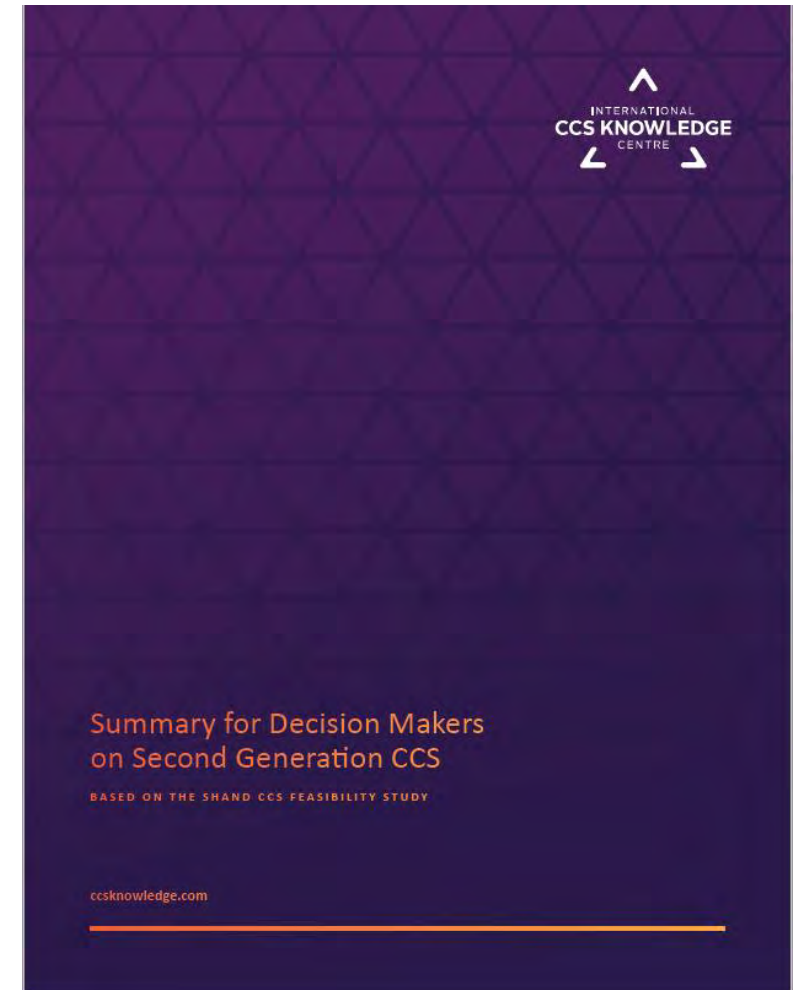
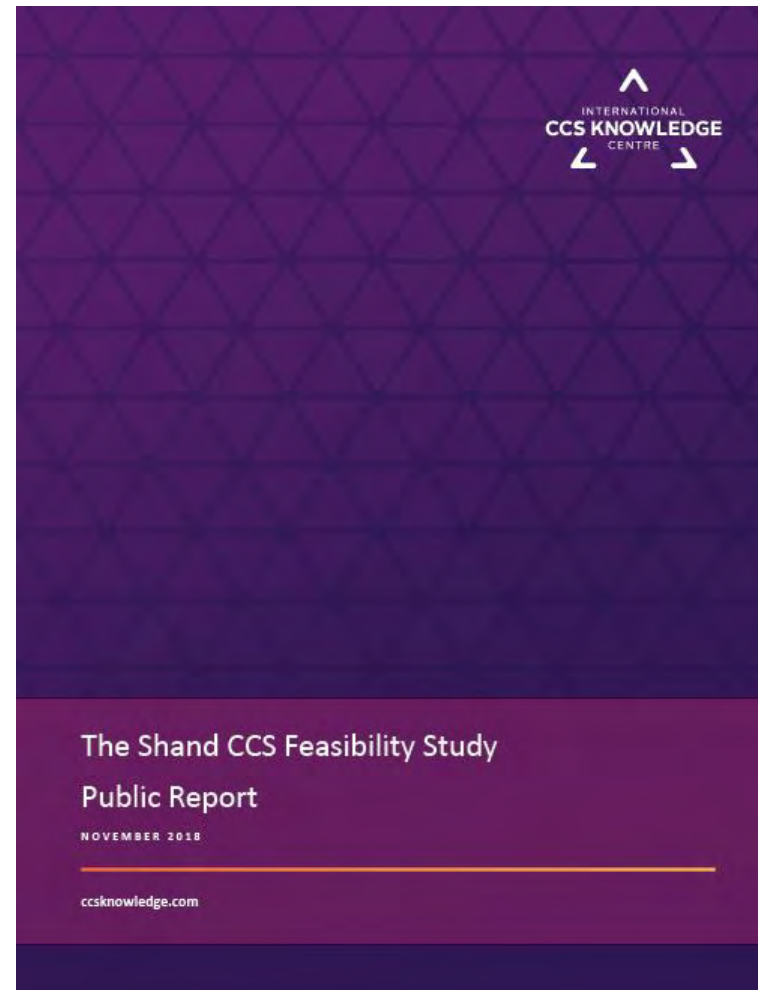
The Shand CCS Feasibility Study
Focuses on technical aspects of retrofitting Shand Power Station.

Summary for Decision Makers on Second Generation

How the Study's information can be broadly applied.

Significant Cost Reductions Found
Reasons:

1. Lessons learned from building and operating CCS
2. Construction at a larger scale using extensive modularization
3. Integration of the bigger unit's steam cycle



SECOND GENERATION DESIGN



- Designed to capture 2Mt
- 67% capital cost reduction (per tonne CO₂)
- Cost of capture at USD\$45/t CO₂
- Can capture up to 97% while integrating with renewables
- Fly ash sales can further reduce CO₂ – net-negative emissions
- No new water

Thank You



For more information please
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