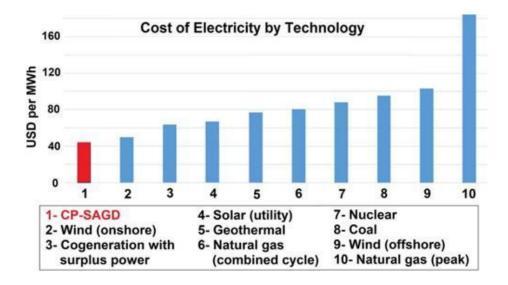
# ELECTRICITY GENERATION FROM POST-BLOWDOWN STEAM ASSISTED GRAVITY DRAINAGE ID# 2024006

#### **HIGHLIGHTS**

- The recovery of left-over heat from post-blowdown reservoirs from which oil was extracted through Steam Assisted Gravity Drainage (SAGD)
- The present disclosure relates to the conversion of the recovered heat energy into electrical energy

# **OPPORTUNITY**

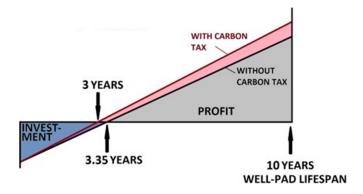
The University of Alberta inventors have developed systems and methods that use a closed-loop circuit for water circulation for post-blowdown SAGD heat recovery from an Organic Rankine Cycle (ORC) engine to convert thermal energy into mechanical power to generate electricity. The estimated cost per MWh is lower than other methods based on average data from BNEF, IRENA, and Lazard.



The same invention described for SAGD can also be used in other thermal projects, such as Cyclic Steam Stimulation (CSS) and steam flood projects after the completion of their life cycle to recover heat and produce electricity.

#### **COMPETITIVE ADVANTAGE**

- Minimum cost
- Less damage to the environment
- Reduced water treatment requirement
- The payback period for a typical CP-SAGD well-pad is estimated at 3 years



#### **STATUS**

Patent Pending

## **INVENTOR**

• Mahmood Salimi, Alireza Nouri and Bruce Peachey

### MORE INFORMATION

Robert Carruthers
Associate Director, Licensing
Technology Transfer Services, University of Alberta
825.601.5559
rwcarruthers@ualberta.ca