

TIDAL TECHNOLOGIES

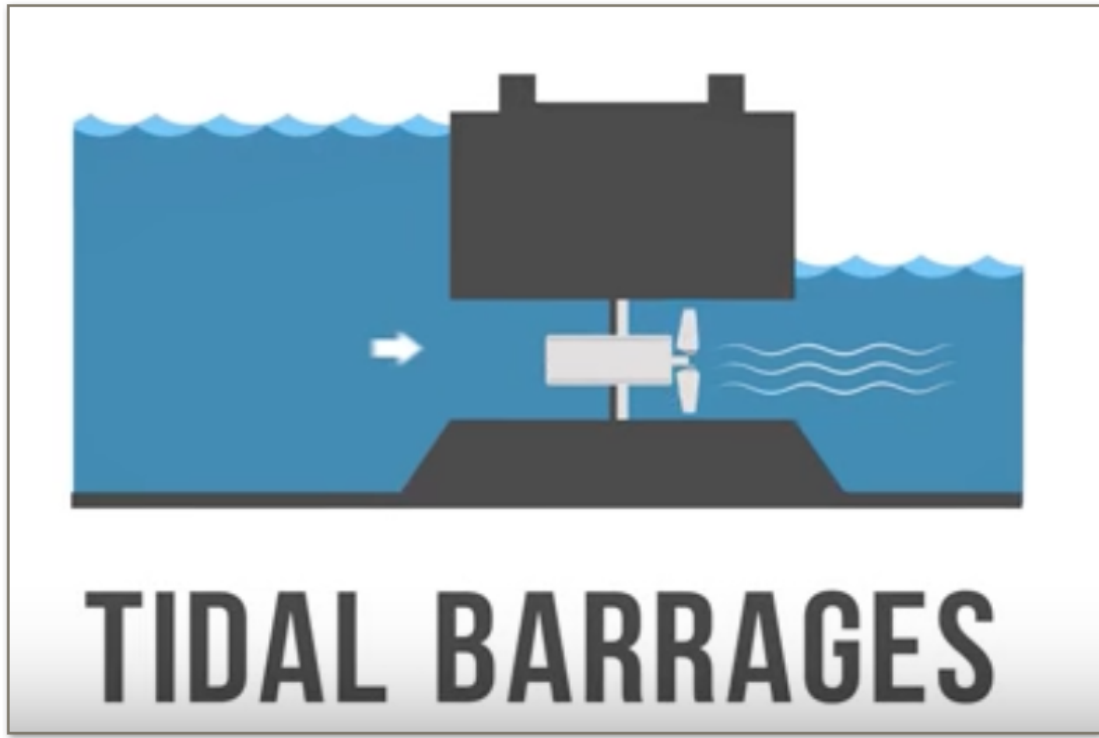


Fig. A1.0
A typical Tidal Barrage
in operation.



Fig. A2.0
A typical Tidal Fence
in operation.

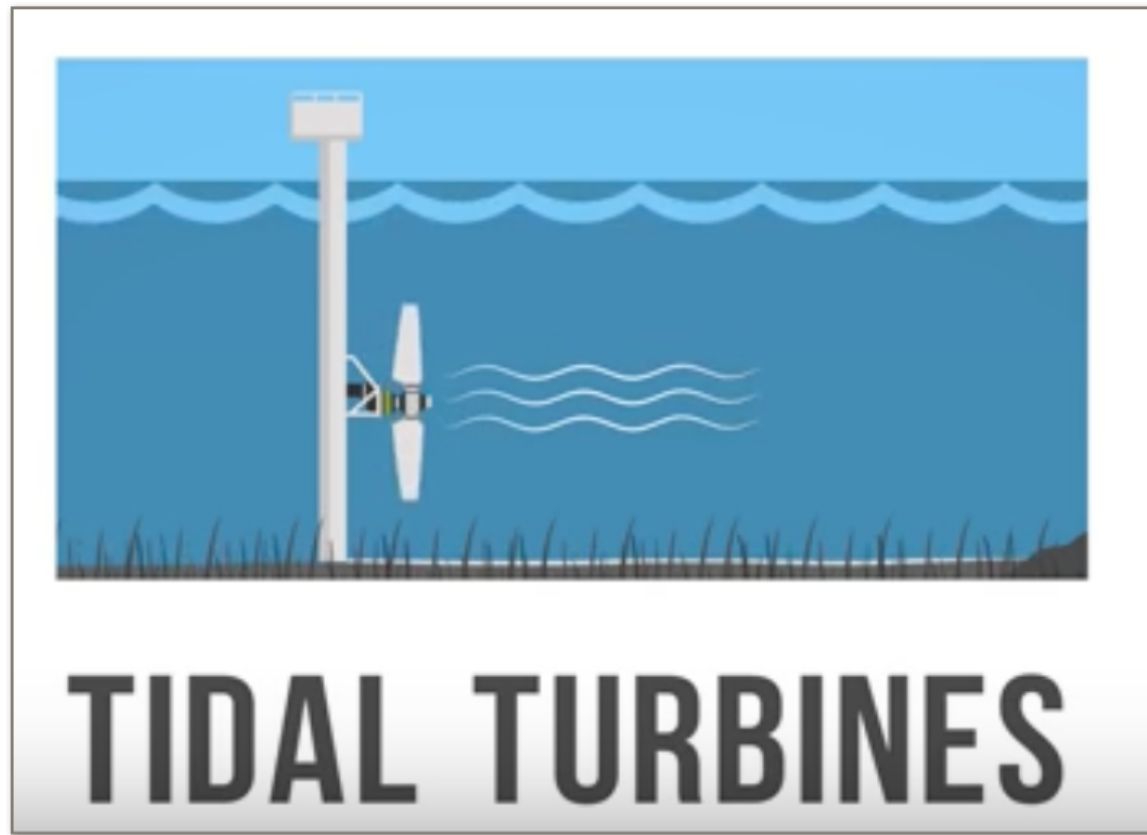


Fig. A3.0
A typical Tidal Turbine
in operation.

RISKS & REWARDS

Main Advantages

- No Emissions of harmful climate gases
- Extremely predictable
- Long life spans

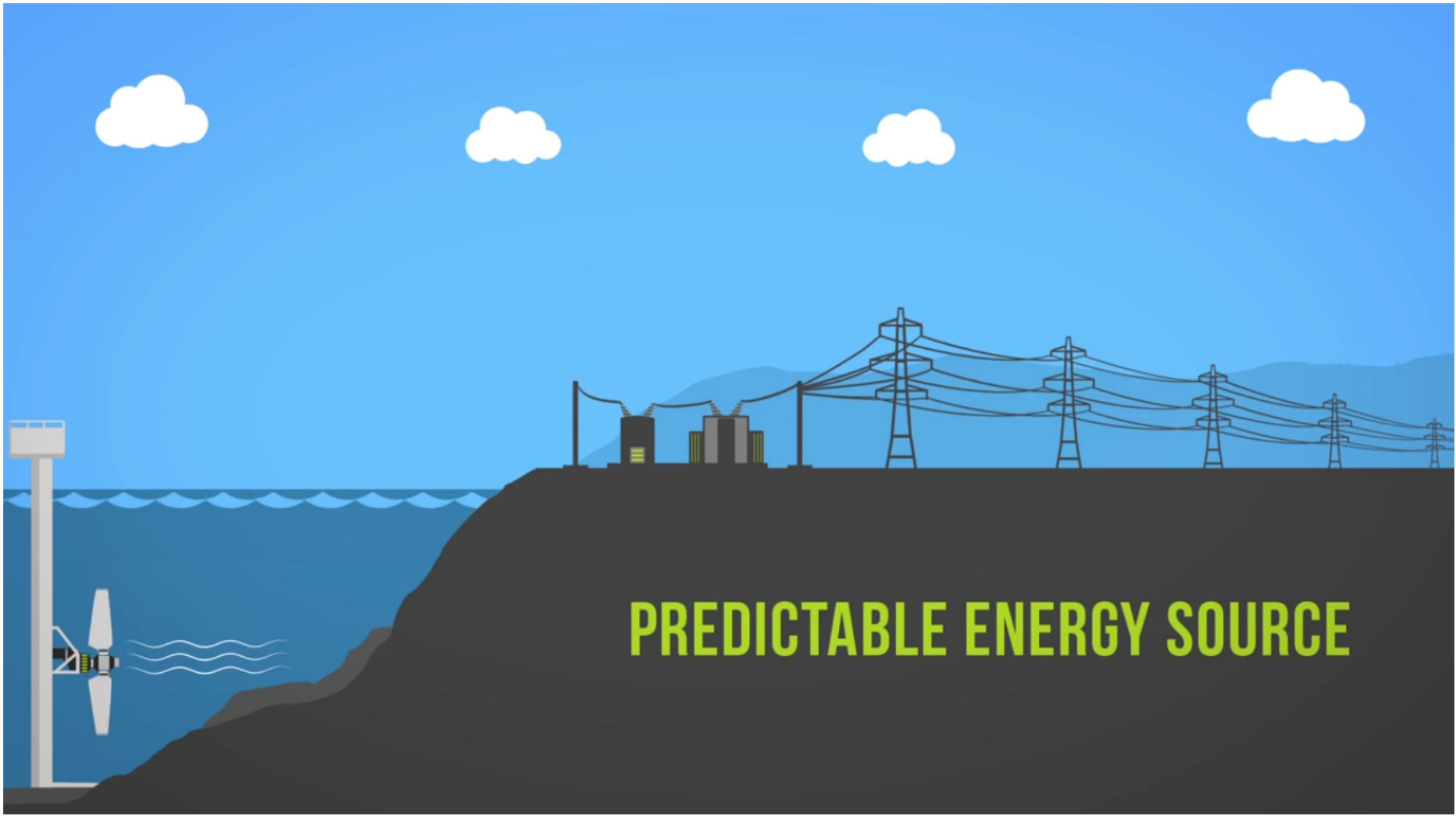


Tidal Energy and how it Pertains to the Construction Industry

Armin Latifi
California Polytechnic State University
San Luis Obispo

Renewable Energy is on the forefront of many global discussions. The concern of numerous scientific findings on the impact humanity has had on the environment has grown in recent years. Since alternative energy sources such as solar and wind have already made substantial progress, I have decided to focus my attention on tidal energy specifically. This topic will serve as the main focus of this essay. Within this essay, I will examine how tidal energy pertains to the construction industry through four distinguished chapters: (1) What kind of tidal technology exist and what does the construction aspect of these tidal technologies require? (2) What are some of the risks and rewards of building a tidal energy plant and is it profitable for a general contractor? (3) What would make tidal energy a more desirable source of renewable energy when compared to others? (4) What would be considered a good site to develop a tidal energy plant? Hopefully, my research will provide general contractors a better idea of what tidal energy projects will entail and if it is a viable option to pursue.

Keywords: Tidal Energy, Tidal Energy Plant, Tidal Energy Profitability, Tidal Energy Sites, Renewable Energy



"Given its rapid advancement, tidal power will be commercially profitable within 2020"
- Mathias Maehlum

TIDAL ENERGY COMPARISON

Energy Resource	Renewable Resource	Low Capital Cost	Low Running Cost	Low Environ Impact	Predictable	Visual Impact	Modular
Fossil	X	✓	X	X	✓	X	X
Nuclear	X	X	X	X	✓	X	X
Wind	✓	X	✓	X	X	X	✓
Solar	✓	X	✓	✓	X	X	✓
Hydro	✓	X	X	X	✓	X	X
Wave	✓	X	✓	✓	X	✓	✓
Tidal	✓	X	✓	✓	✓	✓	✓

POTENTIAL TIDAL SITES



Armin Latifi
arminlatifi94@gmail.com

