Process for Assessing and Resolving Issues Related to Disruptive Technology

Download Chatbot

On this page: *Find the following processes for assessing and resolving issues related to Disruptive Technology.*

Review of the Project Fundamentals

1. Technological Obsolescence

- Have technological standards changed for construction or operation?
- Does the integration of disruptive technology require high upfront costs?
- Have business models in the sector changed due to disruptive technology?
- Has the demand for the service changed due to disruptive technology?
- Are these likely long term or short term changes?
- Have new laws or regulations related to technological standards been put into place?

2. Cyber Attacks

- Has the risk for cyber risk increased?
- Have new laws and regulations related to cyber-attacks been put into place?
- Is the project affected by cyber attacks?

3. Data Theft

- Has data fraud or theft become a problem?
- Have new laws and regulations related to data privacy been put in place?

4. Economic and Social Disruption

- Have disruptive technologies led to economic and social disruption and does this impact the
- project directly or indirectly?

Does the impact lead to financial distress for the project?

- Loss of revenue?
- Increased costs for construction and/or operation?
- Inability of one or both parties to meet obligations?
- Risk of obsolescence or of the asset becoming stranded?

What contractual provisions are available to deal with these issues?

1. Are there contractual obligations/rights that allow the government to make or request the required adjustments?

- Output-specifications/obligation to operate in accordance with good industry practice?
- Direct contractual obligaton to adopt and/or integrate new technologies?
- Indexing and benchmarking

2. Can the issue be dealt with by changing the term of the contract?

3. Are contractual provisions applicable that permit regular adjustments?

- Variations
- Tariffs/payment rules or formulas

4. Are legal mechanisms applicable to the PPP contract that permit adjustments in exceptional situations?

- Equity principles/restoration of the economic equilibrium
- Force majeure
- MAGA/change in law
- Other compensation and relief events
- Is mandatory insurance covering the risk that has materialized?

5. Can the PPP contract be renegotiated under the contract's renegotiation scheme to deal with the issues?

6. Can the issue be solved through relation management and/or dispute resolution?

7. Are emergency clauses/government step-in rights applicable?

8. Is early termination the only way to deal with the issues caused by disruptive technology?

What are potential legal consequences for the government?

- Direct obligations and rights under the PPP contract
- Direct obligations and rights under applicable law
- Potential claims under law and contract

Related Content

- **PPP Contracts in An Age of Disruption (Download PDF version)**

The Disruption and PPPs section is based on the Report "PPP Contracts in An Age of Disruption" and will be reviewed at regular intervals.

For feedback on the content of this section of the website or suggestions for links or materials that could be included, please contact the Public-Private Partnership Resource Center at ppp@worldbank.org.

Disclaimer: *The resources on this site is usually managed by third party websites. The World Bank does not take responsibility for the accuracy, completeness, or quality of the information provided, or for any broken links or moved resources. Any changes in the underlying website or link may result in changes to the analysis and recommendations set forth on the* Public-Private Partnership Resource Center. *The inclusion of documents on this website should not be construed as either a commitment to provide financing or an endorsement by the World Bank of the quality of the document or project. If you have any comments on any of the links provided on the* Public-Private Partnership Resource Center, *please get in touch here*