

# When Lightning Strikes:

## The Ensuing Loss of Power & Profits

### Claim Overview

The Lowers Forensics team was presented with a business interruption claim submitted on basis of increased variable costs of production, stemming from a lightning strike which damaged an integral steam turbine for 153 days and impacted the profitability of several gas turbines.



### Key Issues

#### ■ Accounting-based considerations & adjustments:

- Reconciling conflicting documents and information (Insured documents v. third party)
- Saved expenses and fixed cost savings analysis including depreciation (usage)
- Retroactive capacity and generation payments (and penalties)
- Reduced capacity payments resulting from market conditions and gas turbine inefficiencies as well as seasonality

#### ■ As Claimed (Insured) v. As Calculated (Insurance co. accountant)

#### ■ Penalties incurred resulting from the loss (ICOW)

### Claim Calculations & Analysis

#### Capacity Payment Calculation

##### 1. Steam Turbine

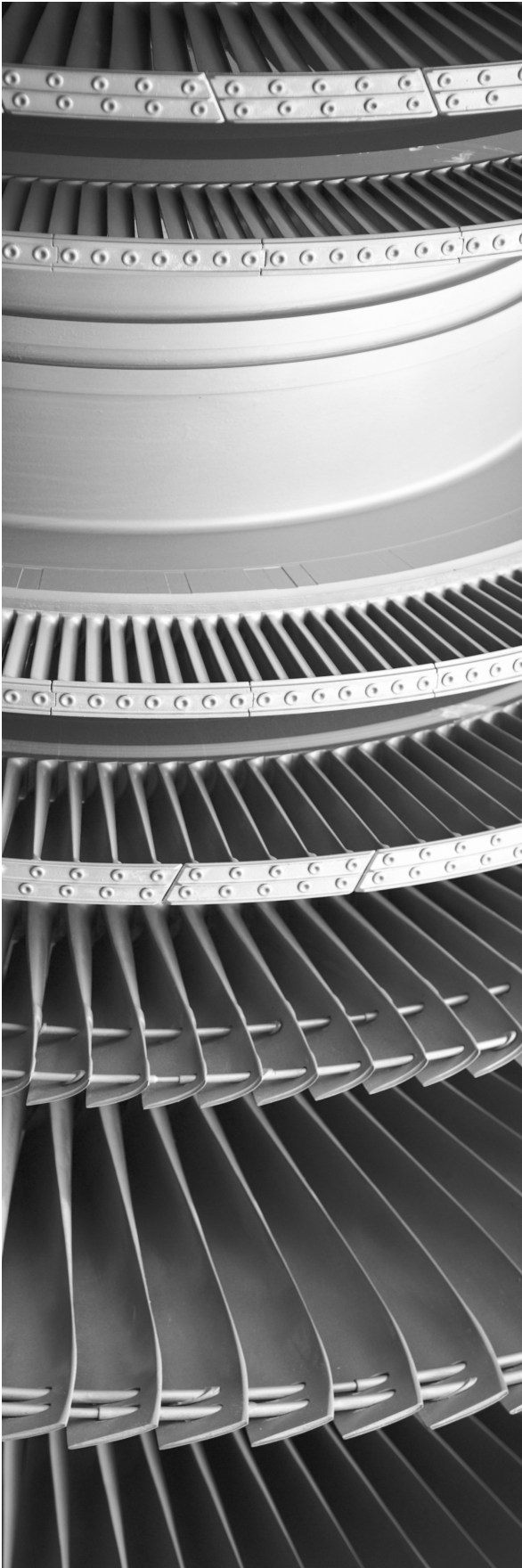
The Insured is required to maintain an average of at least, 90% of contracted capacity to be compensated at their contracted price. Therefore, we performed a historical average daily capacity analysis from December 2011 through June 2012 (date of loss) for the steam turbine in order to calculate a daily capacity standard per month.

##### 2. Gas

The Insured had also received capacity payments from the local energy market based on the availability of the gas turbines to generate energy for the grid. The capacity payment is established retroactively once they have been called for dispatch to the national grid.

We performed a daily average capacity calculation per gas turbine using the period from December 2011 through June 2012. Notably, there was a difference between the amounts projected by us and the Insured:

- We used a historical average of actual capacity available during a similar period for the year prior to the loss.
- The Insured used the maximum available daily capacity of the gas turbines combined, which we did not believe to accurately reflect the normal actual available daily capacity.



We found that the capacity decrease was not resulting from the loss event, but was due to restrictions in the use of natural gas in Unidos LatAm during the corresponding periods (occurring during the winter season).

A further analysis of third party invoices (local energy market) was performed against debit/credit notes to the post operation reports to determine availability of the steam turbine during analyzed period (i.e. reasonableness test). We considered gas capacity payments made based on the day of the week and retroactive consideration of remuneration related to gas capacity payments as the rate changed during the loss period. This was reconciled against third-party documentation and remuneration contracts.

Increased capacity payments were made during interruption period due to demand.

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### Generation Payment

We also calculated a daily generation projection for the steam and gas turbines using a daily average for the similar period affected the year prior.

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### Saved Variable Costs/Expenses

We analyzed the Insured's monthly profit and loss statements during the standard period (12 months prior to loss) in order to identify potential variable expenses that fluctuate with production (generation).

Saved variable costs was compared to the generation during the affected period to determine variability.

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### Depreciation

We classified depreciation for the gas and steam turbines as a non-continuing expense.

We calculated the variable depreciation expense by reducing the book value by the proportional amount of projected generation hours per turbine (units of depreciation).

As a result of the utilization of units-of-depreciation method on the audited financial statements, we analyzed the values at risk to determine that the Insured had concluded that depreciation should be considered non-continuing expense.

## Penalties for Unavailability of the Steam Turbine (Combined Cycle)

Unidos LatAm (Local Energy Market) imposes a fine/penalty for any unavailable turbines resulting from anything other than scheduled maintenance. In the Insured's previous loss, penalties incurred were not considered as part of the indemnity amount due to its exclusion from the policy. The following year, consideration was made, and an additional clause was added to the policy to include penalties.

Penalties were calculated using 4 components:

- A Dispatch coefficient
- USD/MW\*H
- % of unavailability
- Contracted Capacity

Request for dispatch to the grid had to be considered. As a result, we analyzed the historically efficient units available to the national grid and their contracted capacity, this resulted in the determination that CLLL is one of the most efficient unit available to grid (excluding hydroelectric units) and as such would have likely been called to dispatch had it been available.

As a result, the 2nd coefficient was used to determine the penalty and then compared to the Local Energy Market invoices to determine reasonableness.

Comparing the total capacity for the available units against the respective hourly demand we were able to determine if any restrictions would have existed.



## Key Takeaways

Financial analysis should always consider coincidental, outside, and external factors that might be impacting the calculation of loss such as political, environmental/ weather, and other related conditions. Analysis should never be performed in a vacuum.

Trust but verify. Though communication with the Insured is often key and though they may have valid points, it is always important to verify their assertions with outside sources. Changes in the claimed amount may be valid but can also give rise to flags for more questioning.

Third party documentation should be considered as part of the analytical process to provide reasonableness and confirmation of assertions and calculations.