```python
import math
import matplotlib.pyplot as plt
import numpy as np

countries = ['Brazil',
    'Canada',
    'China',
    'DR Cong',
    'Germany',
    'India',
    'Nepal',
    'Norway',
    'Pakistan',
    'USA'
]
country_project_capacity = np.array([ # MW
    3750,
    1903,
    1320,
    1775,
    100,
    1500,
    144,
    116,
    1450,
    2620
])
country_seasonal_generation_rate = np.array([ # percentage of power
    [1, 1, 0.25, 0.25],
    [0.40, 0.10, 1, 0.85],
    [1, 1, 0.25, 0.25],
    [1, 1, 0.25, 0.25],
    [0.40, 0.10, 1, 0.85],
    [0.40, 0.10, 1, 0.85],
    [1, 1, 0.25, 0.25],
    [1, 0.20, 0.60, 0.10],
    [0.40, 0.10, 1, 0.85],
    [0.40, 0.10, 1, 0.85]
])
country_electr_cost = np.array([ # [LLH (18hr), HLH (6hr)]
    [0.12, 0.25],
    [0.10, 0.21],
    [0.07, 0.18],
    [0.06, 0.06],
    [0.44, 0.44],
    [0.09, 0.09],
    [0.07, 0.11],
    [0.10, 0.10],
    [0.06, 0.11],
    [0.17, 0.17]
])
project_cost_rate = 3750 # $/kW


# calculate country/project's daily revenue based on LLH (18h) and HLH (6hr) rates
country_project_capacity_kW = [1000 * cpc for cpc in country_project_capacity]
rate_capacity_hour = (country_project_capacity_kW * country_electr_cost.T).T
rate_capacity_day = [18, 6] * rate_capacity_hour
country_daily_generation = np.zeros(10)
for i in range(len(countries)):
    country_daily_generation[i] = rate_capacity_day[i][0] + rate_capacity_day[i][1]

# calculate longterm revenue with seasonal and yearly * 15 years
country_seasonal_generation = (country_daily_generation * country_seasonal_generation_rate.T).T
country_yearly_generation = np.sum(([90, 90, 90, 90] * country_seasonal_generation), axis = 1)
country_longterm_generation = np.array([15 * cyg for cyg in country_yearly_generation])

# calculate project building costs and profit
country_project_cost = np.array([project_cost_rate * cpc for cpc in country_project_capacity_kW])
country_profit = country_longterm_generation - country_project_cost

print("Based on yearly revenue the countries rank in this order:")
for i in np.argsort(-country_yearly_generation):
    print(countries[i] + " - $" + str(country_yearly_generation[i]))
print()
print("Based on project costs rank in this order:")
for i in np.argsort(-country_project_cost):
    print(countries[i] + " - $" + str(country_project_cost[i]))
print()
print("Based on 15 year profit the countries rank in this order:")
for i in np.argsort(-country_profit):
    print(countries[i] + " - $" + str(country_profit[i]))
```

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Based on yearly revenue the countries rank in this order:
Brazil - $3088125000.0
USA - $2260850400.0000005
Canada - $1231602570.0
China - $694980000.0
India - $685260000.0
DR Cong - $575100000.0
Pakistan - $533614500.0
Germany - $223344000.0
Nepal - $62208000.0
Norway - $47606400.0

Based on project costs rank in this order:
Brazil - $14062500000
USA - $9825000000
Canada - $7136250000
DR Cong - $6656250000
India - $5625000000
Pakistan - $5437500000
China - $4950000000
Nepal - $540000000
Norway - $435000000
Germany - $375000000

Based on 15 year profit the countries rank in this order:
Brazil - $32259375000.0
USA - $24087756000.000008
Canada - $11337788550.0
China - $5474700000.0
India - $4653900000.0
Germany - $2975160000.0
Pakistan - $2566717500.0
DR Cong - $1970250000.0
Nepal - $393120000.0
Norway - $279096000.0
```

I found that my profit order was exactly that of choice B. Even after looking at different precipitation data map plots I found the profit order lined up well with which countries had medium to high precipitation totals, with the exception of USA which seemed to be more inland in the pacific northwest. So I may consider having USA lower but the rest of the order seems adequate.

When checking my calculations with the Hydro Quebec example I found that the capacity of the Beauharnois Hydroelectic Power Station was 5.5% of the HQ's capacity. The revenue I calculated for BHPS it was ~8% of the HQ annual revenue. This makes sense for two reasons: one it is possible that the power station was not run %100 year round and two it is possible that if it was run 100% of the year some of the other stations may not be, hence the higher percentage.